

## THE CAMBRIDGE WORLD HISTORY

\*

### VOLUME VII

Since 1750, the world has become ever more connected, with processes of production and destruction no longer limited by land- or water-based modes of transport and communication. Volume VII of *The Cambridge World History* series, divided into two books, offers a variety of angles of vision on the increasingly interconnected history of humankind. The first book examines structures, spaces, and processes within which and through which the modern world was created, including the environment, energy, technology, population, disease, law, industrialization, imperialism, decolonization, nationalism, and socialism, along with key world regions. The second book questions the extent to which the transformations of the modern world have been shared, focusing on social developments such as urbanization, migration, and changes in family and sexuality; cultural connections through religion, science, music, and sport; ligaments of globalization including rubber, drugs, and the automobile; and moments of particular importance from the Atlantic revolutions to 1989.

J. R. McNEILL is a Professor of History and University Professor at Georgetown University. His books include *The Atlantic Empires of France and Spain: Louisbourg and Havana, 1700–1763*, *The Mountains of the Mediterranean World: An Environmental History* (Cambridge University Press, 1992), *Something New Under the Sun: An Environmental History of the Twentieth-century World*, *The Human Web: A Bird's-eye View of World History* (with William H. McNeill), and *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914* (Cambridge University Press, 2010).

KENNETH POMERANZ is a University Professor of History and in the College at the University of Chicago. His publications include *The Great Divergence: China, Europe, and the Making of the Modern World Economy*, *The Making of a Hinterland: State, Society and Economy in Inland North China, 1853–1937*, and *The World that Trade Created: Society, Culture, and the World Economy, 1400 to the Present*.

THE CAMBRIDGE WORLD HISTORY

*The Cambridge World History* is an authoritative new overview of the dynamic field of world history. It covers the whole of human history, not simply history since the development of written records, in an expanded time frame that represents the latest thinking in world and global history. With over two hundred essays, it is the most comprehensive account yet of the human past, and it draws on a broad international pool of leading academics from a wide range of scholarly disciplines. Reflecting the increasing awareness that world history can be examined through many different approaches and at varying geographic and chronological scales, each volume offers regional, topical, and comparative essays alongside case studies that provide depth of coverage to go with the breadth of vision that is the distinguishing characteristic of world history.

Editor-in-chief

MERRY E. WIESNER-HANKS

*Department of History, University of Wisconsin-Milwaukee*

Editorial Board

GRAEME BARKER *Department of Archaeology,  
Cambridge University*

CRAIG BENJAMIN *Department of History,  
Grand Valley State University*

JERRY BENTLEY *Department of History, University of Hawaii*

DAVID CHRISTIAN *Department of Modern History,  
Macquarie University*

ROSS DUNN *Department of History,  
San Diego State University*

CANDICE GOUCHER *Department of History,  
Washington State University*

MARNIE HUGHES-WARRINGTON *Department of Modern History,  
Monash University*

ALAN KARRAS *International and Area Studies Program,  
University of California, Berkeley*



BENJAMIN Z. KEDAR *Department of History,  
Hebrew University*  
JOHN R. MCNEILL *School of Foreign Service and  
Department of History, Georgetown University*  
KENNETH POMERANZ *Department of History, University of Chicago*  
VERENE SHEPHERD *Department of History,  
University of the West Indies*  
SANJAY SUBRAHMANYAM *Department of History,  
UCLA and Collège de France*  
KAORU SUGIHARA *Department of Economics, Kyoto University*  
MARCEL VAN DER LINDEN *International Institute of Social History,  
Amsterdam*  
Q. EDWARD WANG *Department of History, Rowan University*  
NORMAN YOFFEE *Department of Near Eastern Studies and  
Anthropology, University of Michigan  
Institute for the Study of the Ancient World, New York University*



THE CAMBRIDGE WORLD HISTORY

\*

VOLUME VII

Production, Destruction, and Connection,  
1750–Present

Part I: Structures, Spaces, and Boundary  
Making

\*

*Edited by*

J. R. MCNEILL

*Georgetown University*

*and*

KENNETH POMERANZ

*University of Chicago*



CAMBRIDGE  
UNIVERSITY PRESS

# CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

[www.cambridge.org](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9781107000209](http://www.cambridge.org/9781107000209)

© Cambridge University Press 2015

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2015

Printed in the United Kingdom by TJ International Ltd. Padstow Cornwall

*A catalogue record for this publication is available from the British Library*

ISBN 978-1-107-00020-9 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

## Contents

<i>List of figures</i>	x
<i>List of maps</i>	xii
<i>List of tables</i>	xiii
<i>List of contributors</i>	xiv
<i>Preface</i>	xv

1 · Production, destruction, and connection, 1750–present: introduction	I
--	---

KENNETH POMERANZ AND J. R. MCNEILL

### PART I: MATERIAL MATRICES

2 · Energy, population, and environmental change since 1750: entering the Anthropocene	51
---	----

J. R. MCNEILL

3 · The economic history of agriculture since 1800	83
--	----

GIOVANNI FEDERICO

4 · Global industrialization: a multipolar perspective	106
--	-----

KAORU SUGIHARA

5 · The history of world technology, 1750–present	136
---	-----

PAUL JOSEPHSON

6 · A new world of energy	164
---------------------------	-----

VACLAV SMIL

*Contents*

PART II:  
POPULATION AND DISEASE

- 7 · Demography and population 187  
MASSIMO LIVI-BACCI
- 8 · Population politics since 1750 212  
ALISON BASHFORD
- 9 · Disease and world history from 1750 237  
MARK HARRISON
- 10 · The politics of smallpox eradication 258  
EREZ MANELA

PART III:  
POLITICS

- 11 · The evolution of international law 285  
ANTHONY CLARK AREND
- 12 · On nationalism 306  
AVIEL ROSHWALD
- 13 · Assessing imperialism 331  
DANIELLE KINSEY
- 14 · Self-strengthening and other political responses  
to the expansion of European economic  
and political power 366  
R. BIN WONG
- 15 · Decolonization and its legacy 395  
PRASENJIT DUARA
- 16 · Genocide 420  
MARK LEVENE

*Contents*

17 · Communism and fascism 442

ROBERT STRAYER

PART IV:  
WORLD REGIONS

18 · The Middle East in world history since 1750 467

JOHN OBERT VOLL

19 · East Asia in world history, 1750–21st century 493

MARK SELDEN

20 · Latin America in world history 526

JULIE A. CHARLIP

21 · Africa in world history 556

FREDERICK COOPER

22 · The United States in world history since the 1750s 585

IAN TYRRELL

23 · The economic history of the Pacific 611

LIONEL FROST

*Index* 632

## *Figures*

- 2.1 A derrick in the early days of Persian oil field development in 1909  
(© Hulton-Deutsch Collection/Corbis) 56
- 2.2 Coffee plantation in Brazil (© Bettmann/Corbis) 59
- 2.3 Soviet Russian propaganda poster from 1920s illustrating the growth of industry  
(World History Archive/Alamy) 60
- 2.4 Aerial view of cattle pens in Chicago stockyards, 1950s (ClassicStock/Alamy) 62
- 2.5 A Mexican official walks amid deforestation in Lacandon rainforest, Montes Azules  
(© Reuters/Corbis) 74
- 2.6 Whalers of the South Seas Fishery by John Ward of Hull (Christie's Images/  
Corbis) 76
- 3.1 Output and population 84
- 4.1 Geographical composition of world industrial production,  
1750–1913 122
- 4.2 Structure of world trade, 1840 126
- 4.3 Structure of world trade, 1910 127
- 4.4 Commodity composition of world trade, 1913–2006 131
- 4.5 World energy intensity, 1925–2030 133
- 5.1 Early steam locomotive associated with London & North Western Railway  
(Science & Society Picture Library/SSPL/Getty Images) 138
- 5.2 Ford Motor Company in the early 1900s, showing the assembly line (Everett  
Collection Historical/Alamy) 139
- 5.3 Bakelite radio (Interfoto/Alamy) 143
- 5.4 Three Gorges Dam (Top Photo Corporation/Alamy) 146
- 5.5 Dairy cows feed on grain inside a barn of a modern dairy farm in Loganville,  
Wisconsin, United States (© Paul Damien/National Geographic Society/  
Corbis) 160
- 7.1 Isogrowth curves 191
- 7.2 Demographic transition model 199
- 9.1 Spanish flu epidemic 1918–1919. US school gymnasium converted into a flu ward  
with patients' beds separated by screens (Everett Collection Historical/  
Alamy) 247
- 9.2 A woman looks out of her window next to a banner during a preventive campaign  
against dengue fever organized by the health ministry in a shantytown in Lima,  
Peru in 2012 (© Pilar Olivares/Reuters/Corbis) 254



*List of figures*

- 14.1 Portrait of Chulalongkorn, King of Siam (b.1853–1910), 1893 (Chicago History Museum/Getty Images) 378
- 14.2 Fuzhou Arsenal, China, 1864–1872 (SSPL/Getty Images) 382
- 15.1 Portrait of the psychiatrist and revolutionary Frantz Fanon (AFP/Getty Images) 405
- 15.2 Mahatma Gandhi on his famous March to the Sea to make salt, in defiance of the British salt monopoly, in India during 1930 (© Bettmann/Corbis) 406
- 15.3 Gamal Abdel Nasser (CL) of Egypt talking with Jawaharlal Nehru (CR) of India during the Bandung Conference (Howard Sochurek/The LIFE Picture Collection/Getty Images) 416
- 17.1 “Hilf auch Du mit!” German Nazi propaganda poster showing women helping in the war effort, 1941 (Masterprints/Alamy) 449
- 17.2 Benito Mussolini, the Italian dictator and leader of the Fascist movement, with his generals and Fascist troops as they march on Rome on October 6, 1922 (ZUMA Press, Inc./Alamy) 453
- 17.3 Chinese Red Guards, high school and university students, waving copies of Chairman Mao Zedong’s “Little Red Book,” parade in Beijing’s streets at the beginning of the Great Proletarian Cultural Revolution in June 1966 (Jean Vincent/AFP/Getty Images) 460
- 21.1 French administrator and African notables, c. 1920 (Roger Viollet/Getty Images) 567

## *Maps*

1.1	Basic political map of the world in 1800	4
1.2	Basic political map of the world in 2015	29
2.1	Population density in 1800	64
2.2	Population density in 2000	64
13.1	Eurasia in 1750, with Russian, Ottoman, Qing, Austrian, and Mughal empires	333
13.2	European overseas empires in 1783, showing those of Portugal, Spain, the Dutch Republic, France, and Britain	334
13.3	Major overseas empires in 1914	337
18.1	Islamic states in 1750	470
18.2	Islamic states in 1900	479
18.3	The Middle East today	489
19.1	East Asia today	498
20.1	Latin America in 1800	528
20.2	Latin America in 1830	530
20.3	Latin America today	552
21.1	The partition of Africa	563
21.2	The decolonization of Africa	576
23.1	The Pacific Rim	615

## *Tables*

2.1	Global coal production	57
2.2	Global oil production	57
2.3	Annual rates of global population growth since AD 1000	63
2.4	Global population since AD 1000 (millions)	65
2.5	Global population increment per year, 1950–2010	66
3.1	Workforce	85
3.2	Acreage	87
3.3	Growth in total factor productivity to 1938	89
6.1	Maximum power of prime movers in field work	173
6.2	Maximum power of prime movers in land transportation	173
6.3	Efficiency of lights for indoor illumination	175
6.4	Top efficiency of internal combustion engines	176
6.5	Average annual consumption of primary energy (rounded to the nearest 5 GJ/capita and including all phytomass and fossil fuels and primary electricity)	178
6.6	Maximum energy of explosive weapons, 1900–2000	181
7.1	Population of the continents, 1700–2010	189
7.2	Population of less developed and more developed countries, 1900–2010	202
7.3	Demographic indicators of world population, 1950–2010	204

## *Contributors*

ANTHONY CLARK AREND, Georgetown University  
ALISON BASHFORD, University of Cambridge  
JULIE A. CHARLIP, Whitman College  
FREDERICK COOPER, New York University  
PRASENJIT DUARA, National University of Singapore  
GIOVANNI FEDERICO, European University Institute  
LIONEL FROST, Monash University  
MARK HARRISON, University of Oxford  
PAUL JOSEPHSON, Colby College  
DANIELLE KINSEY, Carleton University  
MARK LEVENE, University of Southampton  
MASSIMO LIVI-BACCI, University of Florence  
EREZ MANELA, Harvard University  
JOHN MCNEILL, Georgetown University  
KENNETH POMERANZ, University of Chicago  
AVIEL ROSHWALD, Georgetown University  
MARK SELDEN, Cornell University  
VACLAV SMIL, University of Manitoba  
ROBERT STRAYER, California State University, Monterey Bay  
KAORU SUGIHARA, National Graduate Institute for Policy Studies, Japan  
IAN TYRRELL, University of New South Wales  
JOHN OBERT VOLL, Georgetown University  
R. BIN WONG, University of California, Los Angeles

## Preface

The Cambridge Histories have long presented authoritative multi-volume overviews of historical topics, with chapters written by specialists. The first of these, the *Cambridge Modern History*, planned by Lord Acton and appearing after his death from 1902 to 1912, had fourteen volumes and served as the model for those that followed, which included the seven-volume *Cambridge Medieval History* (1911–1936), the twelve-volume *Cambridge Ancient History* (1924–1939), the thirteen-volume *Cambridge History of China* (1978–2009), and more specialized multi-volume works on countries, religions, regions, events, themes, and genres. These works are designed, as the *Cambridge History of China* puts it, to be the “largest and most comprehensive” history in the English language of their topic, and, as the *Cambridge History of Political Thought* asserts, to cover “every major theme.”

The Cambridge World History both follows and breaks with the model set by its august predecessors. Presenting the “largest and most comprehensive” history of the world would take at least three hundred volumes – and a hundred years – as would covering “every major theme.” Instead the series provides an overview of the dynamic field of world history in seven volumes over nine books. It covers all of human history, not simply that since the development of written records, in an expanded time frame that represents the newest thinking in world history. This broad time frame blurs the line between archaeology and history, and presents both as complementary approaches to the human past. The volume editors include archaeologists as well as historians, and have positions at universities in the United States, Britain, France, Australia, and Israel. The essays similarly draw on a broad author pool of historians, art historians, anthropologists, classicists, archaeologists, economists, linguists, sociologists, biologists, geographers, and area studies specialists, who come from universities in Australia, Britain, Canada, China, Estonia, France, Germany, India, Israel, Italy, Japan, the Netherlands, New Zealand, Poland, Portugal, Singapore, Sweden, Switzerland, and the United States. They include very senior scholars whose works have helped to form the field, and also mid-career and younger scholars whose research will continue to shape it in the future. Some of the authors are closely associated with the rise of world history as a distinct research and teaching field, while others describe what they do primarily as global history, transnational history, international history, or comparative history. (Several of the essays in Volume 1 trace the development of these overlapping, entangled, and at times competing fields.) Many authors are simply specialists on their topic who the editors thought could best explain this to a broader audience or reach beyond their comfort zones into territory that was new.

Reflecting the increasing awareness that world history can be examined through many different approaches and at varying geographic and chronological scales, each volume offers several types of essays, including regional, topical, and comparative ones, along with case studies that provide depth to go with the breadth of vision that is the distinguishing characteristic of world history. Volume I introduces key frames of analysis that shape the making of world history across time periods, with essays on overarching approaches, methods, and themes. It then includes a group of essays on the Paleolithic, covering the 95 percent of human history up to 10,000 BCE. From that point on, each volume covers a shorter time period than its predecessor, with slightly overlapping chronologies volume to volume to reflect the complex periodization of a truly global history. The editors chose the overlapping chronologies, and stayed away from traditional period titles (e.g. “classical” or “early modern”) intentionally to challenge standard periodization to some degree. The overlapping chronologies also allow each volume to highlight geographic disjunctures and imbalances, and the ways in which various areas influenced one another. Each of the volumes centers on a key theme or cluster of themes that the editors view as central to the period covered in the volume and also as essential to an understanding of world history as a whole.

Volume II (*A World with Agriculture, 12,000 BCE–500 CE*) begins with the Neolithic, but continues into later periods to explore the origins of agriculture and agricultural communities in various regions of the world, as well as to discuss issues associated with pastoralism and hunter-fisher-gatherer economies. It traces common developments in the more complex social structures and cultural forms that agriculture enabled, and then presents a series of regional overviews accompanied by detailed case studies from many different parts of the world.

Volume III (*Early Cities and Comparative History, 4000 BCE–1200 CE*) focuses on early cities as motors of change in human society. Through case studies of cities and comparative chapters that address common issues, it traces the creation and transmission of administrative and information technologies, the performance of rituals, the distribution of power, and the relationship of cities with their hinterlands. It has a broad and flexible chronology to capture the development of cities in various regions of the world and the transformation of some cities into imperial capitals.

Volume IV (*A World with States, Empires, and Networks, 1200 BCE–900 CE*) continues the analysis of processes associated with the creation of larger-scale political entities and networks of exchange, including those generally featured in accounts of the rise of “classical civilizations,” but with an expanded time frame that allows the inclusion of more areas of the world. It analyzes common social, economic, cultural, political, and technological developments, and includes chapters on slavery, religion, science, art, and gender. It then presents a series of regional overviews, each accompanied by a case study or two examining one smaller geographic area or topic within that region in greater depth.

Volume V (*Expanding Webs of Exchange and Conquest, 500 CE–1500 CE*) highlights the growing networks of trade and cross-cultural interaction that were a hallmark of the millennium covered in the volume, including the expansion of text-based religions and the transmission of science, philosophy, and technology. It explores social structures, cultural institutions, and significant themes such as the environment, warfare, education, the family, and courtly cultures on both a global and Eurasian scale, and continues the

examination of state formation begun in Volume IV with chapters on polities and empires in Asia, Africa, Europe, and the Americas.

The first five volumes each appear in a single book, but the last two are double volumes covering the periods conventionally known as the early modern and modern, an organization signaling the increasing complexity of an ever more globalized world in the last half millennium, as well as the expanding base of source materials and existing historical analyses for these more recent eras. Volume VI (*The Construction of a Global World, 1400–1800 CE*) traces the increasing biological, commercial, and cultural exchanges of the period, and explores regional and transregional political, cultural, and intellectual developments. The first book within this volume, *Foundations*, focuses on global matrices that allowed this increasingly interdependent world to be created, including the environment, technology, and disease; crossroads and macro-regions such as the Caribbean, the Indian Ocean, and Southeast Asia in which connections were especially intense; and large-scale political formations, particularly maritime and land-based empires such as Russia, the Islamic Empires, and the Iberian Empires that stretched across continents and seas. The second book within this volume, *Patterns of Change*, examines global and regional migrations and encounters, and the economic, social, cultural, and institutional structures that both shaped and were shaped by these, including trade networks, law, commodity flows, production processes, and religious systems.

Volume VII (*Production, Destruction, and Connection, 1750–Present*) examines the uneven transition to a world with fossil fuels and an exploding human population that has grown ever more interactive through processes of globalization. The first book within this double volume, *Structures, Spaces, and Boundary Making*, discusses the material situations within which our crowded world has developed, including the environment, agriculture, technology, energy, and disease; the political movements that have shaped it, such as nationalism, imperialism, decolonization, and communism; and some of its key regions. The second book, *Shared Transformations?*, explores topics that have been considered in earlier volumes, including the family, urbanization, migration, religion, and science, along with some that only emerge as global phenomena in this era, such as sports, music, and the automobile, as well as specific moments of transition, including the Cold War and 1989.

Taken together, the volumes contain about two hundred essays, which means the Cambridge World History is comprehensive, but certainly not exhaustive. Each volume editor has made difficult choices about what to include and what to leave out, a problem for all world histories since those of Herodotus and Sima Qian more than two millennia ago. Each volume is arranged in the way that the volume editor or editors decided is most appropriate for the period, so that organizational schema differ slightly from volume to volume. Given the overlapping chronologies, certain topics are covered in several different volumes because they are important for understanding the historical processes at the heart of each of these, and because we as editors decided that viewing key developments from multiple perspectives is particularly appropriate for world history. As with other Cambridge Histories, the essays are relatively lightly footnoted, and include a short list of further readings, the first step for readers who want to delve deeper into the field. In contrast to other Cambridge Histories, all volumes are being published at the same time, for the leisurely pace of the print world that allowed publication over several decades does not fit with twenty-first-century digital demands.

In other ways as well, the Cambridge World History reflects the time in which it has been conceptualized and produced, just as the Cambridge Modern History did. Lord Acton envisioned his work, and Cambridge University Press described it, as “a history of the world,” although in only a handful of chapters out of several hundred were the principal actors individuals, groups, or polities outside of Europe and North America. This is not surprising, although the identical self-description of the New Cambridge Modern History (1957–1979), with a similar balance of topics, might be a bit more so. The fact that in 1957 – and even in 1979, when the last volume of the series appeared – Europe would be understood as “the world” and as the source of all that was modern highlights the power and longevity of the perspective we have since come to call “Eurocentric.” (In other languages, there are perspectives on world history that are similarly centered on the regions in which they have been produced.) The continued focus on Europe in the mid-twentieth century also highlights the youth of the fields of world and global history, in which the conferences, professional societies, journals, and other markers of an up-and-coming field have primarily emerged since the 1980s, and some only within the last decade. The *Journal of World History*, for example, was first published in 1990, the *Journal of Global History* in 2005, and *New Global Studies* in 2007.

World and global history have developed in an era of intense self-reflection in all academic disciplines, when no term can be used unselfconsciously and every category must be complicated. Worries about inclusion and exclusion, about diversity and multivocality, are standard practice in sub-fields of history and related disciplines that have grown up in this atmosphere. Thus as we editors sought topics that would give us a balance between the traditional focus in world history on large-scale political and economic processes carried out by governments and commercial elites and newer concerns with cultural forms, representation, and meaning, we also sought to include topics that have been important in different national historiographies. We also attempted to find authors who would provide geographic balance along with a balance between older and younger voices. Although the author pool is decidedly broader geographically – and more balanced in terms of gender – than it was in either of the Cambridge Modern Histories, it is not as global as we had hoped. Contemporary world and global history is overwhelmingly anglophone, and, given the scholarly diaspora, disproportionately institutionally situated in the United States and the United Kingdom. Along with other disparities in our contemporary world, this disproportion is, of course, the result of the developments traced in this series, though the authors might disagree about which volume holds the key to its origins, or whether one should spend much time searching for origins at all.

My hopes for the series are not as sweeping as Lord Acton’s were for his, but fit with those of Tapan Raychaudhuri and Irfan Habib, the editors of the two-volume Cambridge Economic History of India (1982). In the preface to their work, they comment: “We only dare to hope that our collaborative effort will stimulate discussion and help create new knowledge which may replace before many years the information and analysis offered in this volume.” In a field as vibrant as world and global history, I have no doubts that such new transformative knowledge will emerge quickly, but hope this series will provide an entrée to the field, and a useful overview of its state in the early twenty-first century.

MERRY E. WIESNER-HANKS



## Production, destruction, and connection, 1750–present: introduction

KENNETH POMERANZ AND J. R. MCNEILL

Forty-three essays about modern world history is both too many and too few, and to begin *c.* 1750 is both too late and too early. We could not do everything, and have chosen to exhibit a wide variety of approaches to world history – focusing on regions, moments, commodities, large social processes, themes, and so on – rather than providing many examples of any one of these approaches. Sometimes our choice within categories was guided by the availability of a particular author, sometimes by a sense that one example was indeed more important than another, and sometimes by a concern for some other sort of balance. (If some topics seemed likely to yield essays in which, say, Latin America was much more prominent than the Middle East, we were that much more inclined to look for another in which the Middle East would figure prominently.) But ultimately, our offerings are much like those of chefs whose evening menus depend on what happened to be in the market this morning. We make no claim to telling the entire story, and many essays must stand not only for themselves, but also as illustrative of a certain thread in world history. We hope that readers will find that an essay on rubber or automobiles in modern world history suggests ideas about what global histories of coffee or railways might look like, or an essay on global 1956 what an essay on global 1968 might be. If so, we will be content with having perhaps whetted their appetites for more in this diverse and sprawling field.

Our chronology is also, inevitably, somewhat arbitrary, and we have been happy to let authors violate it where they thought it made sense to do so. In fact, all the volumes of this set have a somewhat ragged and overlapping chronology – that is a feature of the program, not a bug. Not only do different subjects invite different periodizations, but a single subject often looks quite different when considered on different timescales, with trends appearing, disappearing, or reversing, different parts of the world

involved, and different results seeming more or less significant. The point is usually not that one of these timescales represents the “true” perspective, but that they must be explicitly juxtaposed to grasp the significance of the phenomenon, either as immediately experienced or as understood from the perspective of our own moment.

But that does not mean that any chronology is as good as any other, and our volume is defined by at least two decisions about periodization that are worth discussing:

- (1) why use 1750 as a rough beginning for what will, whether we like it or not, inevitably wind up being referred to as the “modern” volume of the Cambridge World History?
- (2) why not subdivide this period of enormous changes, with, say, one book on 1750–1900 and another on post-1900?

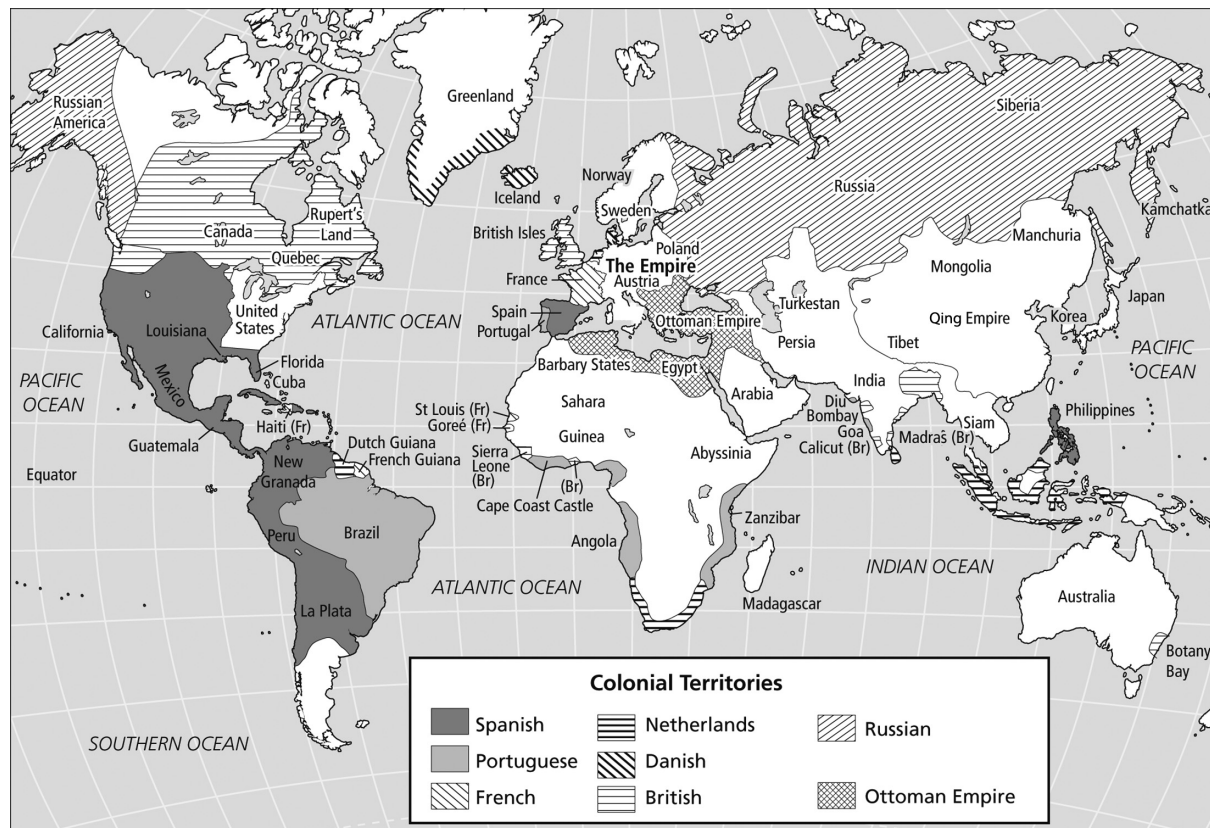
Those questions must, of course, be answered in relation to particular themes. The title of this volume “Production, Destruction, and Connection,” influenced our choice of essay topics, though it does not fully account for what appears between these covers. It also fits some essays better than others, as volumes like ours do not aim for the degree of unity that one might find in a collection of essays from a tightly focused conference. We are, moreover, quite conscious that this choice of themes risks over-emphasizing the material aspects of life; it is not our aim to do so. But we would note that there are both historiographical and historical reasons why these themes loom so large. “Connection” is, obviously, central to a work that aims to explore “world history” in particular, rather than all history that has happened in the world; along with comparison, it forms one of the major ways that we bring remote peoples and places into the same analytical frame. Second, the material aspects of life are the ones for which comparison is easiest – life expectancy in two very different societies is more easily compared than are gender roles or art forms – and for which long-distance flows are most easily traced (shipping manifests do not list the ideas on board). Third, to the extent that history is about change over time, there is reason to highlight material life during our period, in which material production and destruction have, by many measures, changed more dramatically than in all the rest of human history.

Thus, to help the reader find something in these volumes beyond the sum of their parts, it makes sense to ask to what extent the last 250 (or so) years might form a reasonably unified and distinctive epoch in terms of production, destruction, and connection.

@1750: destruction, connection, and a world  
of colliding empires

It is convenient, then, that the beginning of our period is sharply marked by an increase in the prevalence of world wars – events that connected larger-than-ever parts of the globe in overlapping campaigns of destruction with world-altering consequences. While earlier conflicts had involved broadly dispersed battles – particularly the long-running conflict between the Dutch and the Iberian powers – the Seven Years' War (1754–1763) was more truly global, both in its venues and in its consequences. The French loss of Quebec and Louisiana (the latter briefly and partially recovered in 1800 before being sold to the United States) and the resulting shifts in the balance of power between Native Americans, European settlers, and the British crown fundamentally changed the history of North America. The British victory at Plassey (1757) over the Nawab of Bengal (a French ally) was an equally epochal event in the history of South Asia, and of global imperialism. It marked, among other things, the first acquisition by a European power of a piece of the Asian mainland beyond a small port and its hinterland, and began the English East India Company's second (and more consequential) life as a territorial government that could tax land, adjudicate disputes, enforce monopolies, and raise and deploy significant armies. Other territory changed hands, either permanently or temporarily, on almost all inhabited continents: examples ranged from Manila to Senegal to Havana to Dresden to Pondicherry to Sacramento in Brazil (Map 1.1). The financial and strategic consequences of the war ultimately set the stage for the Atlantic revolutions of c. 1775–1825; taken together, they triggered an enormous shift in the focus of European colonialism from the western hemisphere to the eastern.

Moreover, the Atlantic revolutions and wars were epochal in at least two other senses. From today's retrospective standpoint, they mark the first retreat of a wave of European colonialism that had begun as far back as the capture of Ceuta in 1415. As such, those revolutions also created precedents and icons which would inspire participants in the second, twentieth-century, wave of decolonization: George Washington, Simon Bolivar, Toussaint L'Ouverture, the Declaration of the Rights of Man, and so on. Equally fundamentally, the Atlantic revolutions would also reorder the politics of large parts of the world and introduce political forms – the large-scale republic, and, in some sense, the national state itself – that dominate the world today.



Map 1.1 Basic political map of the world in 1800

Nor were the Seven Years' War and its sequels the only reason to think of the mid-eighteenth century as inaugurating a new, and more global, geopolitical landscape. The final defeat of the Zunghar Mongols by the Qing dynasty in 1759 marked the end of a century of expansion, and gave what we today call China something very close to its modern borders. Crucially, this conquest was made possible not only by unprecedented Qing achievements in logistics but by Russian expansion, which limited the ability of the Mongols to retreat into safety. It thus marked a new era in which clear-cut geographic borders like those we take for granted today were becoming more important, and agrarian (and later industrial) polities would marginalize nomadic peoples as never before. Russian victory in its 1768–1774 war with the Ottomans – resulting in the exodus of about 100,000 Crimean Tatars – was part of the same advance of sedentary peoples and territorial states.

The defeat of the Zunghars in particular marked a milestone in a long-running global story: the victory of sedentary states over horse-riding nomadic confederations, after roughly three millennia of seesaw competition (and co-operation) between these different kinds of polities. That story was far from over in 1759, as we shall see shortly: its last act should probably be dated to the nineteenth century, with the defeat of the Sioux, the Comanche, and other Native American federations. But in North America, equestrian states were novelties, because horses were a recent import. On the Eurasian steppe, where horse nomads helped shape politics for far longer, the meeting of two huge agrarian empires in Central Eurasia, enabling the destruction of the last major remnant of Mongol power, marks a particularly important moment in that story.

Indeed, the Zunghar defeat can be seen as part of an even larger tale: the subjugation and sometimes destruction of “tribal” peoples generally – including forest, marsh, and other peoples who, unlike horse-riders, had rarely threatened agrarian polities, but often stood in the way of their expansion. Here, too, the eighteenth century, seen globally, marks a fateful, though not final, shift in a long-running set of struggles.

A few decades before 1750, the discovery of gold and diamonds in the interior of Brazil had helped spark a massive movement of people (including African slaves) from the coast into areas to which coastal residents had previously paid little attention. In North America, as already mentioned, the end of the Seven Years' War placed the Atlantic colonies at least nominally under the same flag as the vast fertile plains west of the Appalachians, deprived indigenous people of a powerful potential ally (the French, having been more interested in fur trading than agricultural settlement, had had an

easier time reaching accommodations with Native Americans) and thus opened the way for an especially dramatic (and traumatic) assault on both nomadic and settled Native societies. When this and other results of the Seven Years' War helped lead some British colonies in North America to declare and win their independence, Britain would start shipping convicts to Australia rather than Georgia, extending this process to the one inhabited continent that it had not yet affected. The continuing succession of wars allowed American-born descendants of Europeans (usually called "creoles") to form independent states in what had been the Spanish Empire across most of mainland Central and South America as well; they, too, tended to take a more consistently aggressive stance towards indigenous communities than their predecessors had.

The British colonial regime that was taking shape in South Asia during these same wars – a process that began in Bengal in the 1750s and reached new heights during South Asian conflicts that became intertwined with Britain's wars against revolutionary and Napoleonic France – also took a much more consistently hostile stance towards non-agricultural (or semi-agricultural) populations than most of its predecessors had. This was not a settler-dominated regime, like those which emerged from Europe's American colonies. It was, however, a regime determined to increase its tax revenues, in part by encouraging intensive cultivation and agricultural commercialization; it was also less dependent than its predecessors had been on locally raised cavalry and fodder.<sup>1</sup> Moreover, it was ideologically hostile to those who failed to "improve" property – or, because they moved frequently, seemed indifferent to it – seeing this as a barrier to "civilized" life more generally.

Next door to Britain's emerging Indian empire, a new round of wars was also reshaping mainland Southeast Asia. They began c. 1740 in Burma as Mon rebels (who had French support) were ultimately defeated by a reinvigorated central government, and increasingly marginalized thereafter. Khmers and Chams would become increasingly subordinated by a more centralized

1 Mahesh Rangarajan, "Environmental histories of India: of states, landscapes, and ecologies," in Edmund T. Burke III and Kenneth Pomeranz, eds., *The Environment and World History* (Berkeley, CA: University of California Press, 2009), pp. 232–237, 240; Kaushik Roy, "The hybrid military establishment of the East India Company in South Asia: 1750–1849," *Journal of Global History* 6:2 (July 2011), 18. The Ottoman Empire in the seventeenth to nineteenth centuries intermittently pursued a policy of settling or destroying nomadic populations within its borders, with similar motives: Resat Kasaba, *A Moveable Empire: Ottoman Nomads, Migrants, and Refugees* (Seattle, WA: University of Washington Press, 2009).

Vietnamese state a few decades later; Siam would likewise place Malay, Lao, and Khmer tributaries under tighter control; imported guns and profits from participation in expanding maritime trade would play important parts in all of these campaigns of territorial consolidation, which were also marked by extended battles among the consolidating states themselves (especially Burma and Siam).<sup>2</sup> North and east of those battles, Chinese dynamics showed that agrarian empires in crisis could sometimes be as dangerous to their neighbors as those in the flush of success. One after another “minority uprising” occurred in China’s borderlands from c. 1780 onwards. Often these were in response to an influx of disaster-stricken farmers from China’s interior and/or the inability of an over-extended imperial administration to keep order; in many cases, though, the ultimate result was no better for the indigenous peoples than in places where they faced a systematic campaign of expansion organized from a position of strength. Any analogy between these varied processes and, say, the Qing and Romanovs squeezing the Mongols must be a loose one – and any comparison to the expansion of creole regimes in the Americas much looser still. Nonetheless, it is worth noting that even in the absence of formal treaties and alliance systems, and in the absence of real threats from the peoples on their frontiers, expanding and centralizing empires were often engaged in increasingly similar, and mutually entangled, enterprises.

We must be careful not to assume that what we see in retrospect was visible in advance. The battle between sedentary and horse-riding nomads was, as we have already noted, a protracted one, stretching almost to 1900; the survival struggles of many forest peoples continue today. Nomads in particular had won many previous contests with agrarian regimes, and it was hardly foreseeable that a long string of particularly damaging defeats awaited them this time – especially since railways, repeating rifles, barbed wire, and other nineteenth-century innovations were as yet unknown. Indeed, the late eighteenth century was marked in many places by a seemingly opposite process, in which nomadic or semi-nomadic conquerors took the offensive against fragile agrarian states. This “tribal breakout” (to use Christopher Bayly’s term)<sup>3</sup> inflicted serious damage on Muslim empires arrayed across southern Asia, from the Ottoman realm to Java,

2 Victor Lieberman, *Strange Parallels: Southeast Asia in a Global Context, c. 800–1830*, Vol. 1: *Integration of the Mainland* (Cambridge University Press, 2003), pp. 202–206, 335, 430–435.

3 Christopher Bayly, *Imperial Meridian: The British Empire and the World, 1780–1830* (London: Longman, 1989), pp. 33–54.



and did much to create the context in which European (mostly British) invaders could do a great deal with relatively small forces, establishing themselves as colonial rulers, with agricultural and mercantile elites who needed security becoming junior partners. Nadir Shah and the Marathas in India, the founders of the Qajar state in Iran, the founders of the house of Sa'ud who challenged Ottoman power on the Arabian peninsula, and others, may now seem like a last gasp of nomadic power, but that is clear only in retrospect. That temporary expansions of equestrian (or camel-raising) nomadic power ultimately aided sea-borne conquerors who would press even harder than indigenous sedentary states had – not just against particular nomads, but against nomadism – complicates this long historical arc, but does not change the fact that the mid-eighteenth century marked one of its notable inflection points.

### Chronologies of production and connection: unprecedented demographic and economic growth

In demography, economy, and ecology, the 1750s is likewise a watershed. Here, too, one can make a strong case for the special character of the twentieth century (as one of us has done in book-length form), but there is also much to be said for marking some eighteenth-century origins. Let us begin with population: the focus of Massimo Livi-Bacci's chapter, and also touched on in those by John McNeill and Alison Bashford (Chapters 7, 2, and 8).

The years from about 1610 to 1680 marked the last long period (so far) in which global population grew very little, and perhaps not at all. In the eighteenth century, by contrast, world population grew by almost 50 percent, which had probably never happened before in just 100 years. In the nineteenth century, human numbers grew by perhaps 80 percent, and in the twentieth century they added a stunning 4.4 billion people: an increment almost three times (275 percent) the 1.6 billion people with which the century started.

Crucially, both the motors of that change and its geographic centers have changed greatly over time, as Livi-Bacci emphasizes. Until at least 1850, there was not much improvement anywhere in life expectancies, so that almost all the increase came from higher birth rates. Still, the end of the worst phases of the Little Ice Age c. 1710 improved survival rates in much of the world, and at least some societies, perhaps chastened by the horrors of the seventeenth century, made greater efforts to provide their members with a safety



net.<sup>4</sup> In the nineteenth century – mostly the second half – life expectancies began to improve in a few, mostly Western, areas, and birth rates declined beginning a few decades later. In the twentieth century, especially after the Second World War, death rates have declined sharply almost everywhere; birth rates have also fallen, but not as fast or (thus far) as universally. Here, too, then, we see a case for a unified, though not homogeneous historical period running from some time in the eighteenth century to the present.

At first, the declines in mortality were probably driven mostly by improved nutrition, and by the retreat of plague: in other words by the same sorts of factors that had driven most past fluctuations in death rates. But in the latter half of the nineteenth century, changes in sanitation and public health (especially improved access to clean water) became increasingly important; in the twentieth century, direct medical interventions began to matter as never before (though, as William McAllister points out in his chapter on both licit and illicit drugs [Volume VII Part 2, Chapter 19], at least one-third of the world's people lack reliable access to modern pharmaceuticals).

These may appear, then, to be transformations driven by science and technology. But it would be more accurate to say that they were enabled by those factors. As both Mark Harrison and Erez Manela make clear (Chapters 9 and 10), the timing and geography of advances in both public and individual medicine were and are very much influenced by politics. And when it comes to the decline in birth rates, politics looms even larger, as Alison Bashford shows. Politicians, intellectuals, and others have debated intensely whether anyone should be allowed or forced to limit their births, and by what means; not surprisingly, the outcomes have varied in different societies, and continue to do so even as the debates themselves have become increasingly global. Moreover, the winners of the public debates could not necessarily override the private ideas and desires of couples. Pro-natalist policies, as Bashford shows, have failed more often than succeeded; some sterilization campaigns have been strongly and effectively resisted. Even in post-1980 China, where a particularly determined and coercive birth control campaign has contributed to a dramatic decline in birth rates, the state was

4 Geoffrey Parker, *Global Crisis: War, Climate Change and Catastrophe in the Seventeenth Century* (New Haven, CT: Yale University Press, 2013) is the major work on the climate-related catastrophes of the 1600s, and argues (more suggestively) that lessons learned from these years were crucial to the creation of stronger guarantees of minimum welfare hereafter, which in turn gave people in certain societies enough security to encourage productive risk-taking in the eighteenth century.

forced to compromise in significant ways with the norms of rural society.<sup>5</sup> In most parts of the world, the decline in birth rates has been a recent occurrence, and has been largely the result of people making their own decisions in the light of shifting norms and incentives.

With regard to the economy more generally there would be a good case for a slightly different periodization, in which the peculiarity of the last 175–200 years was much more marked than that of the last 265. Despite various signs that important structural changes were underway in some economies during the eighteenth century, there is general agreement that even in Britain, sustained and significant per capita growth was not clearly present until some years after the end of the Napoleonic Wars in 1815; clear-cut improvements in the living standards of ordinary people would have to wait another generation beyond that. As late as 1830, even Britain still used as much power from waterwheels as from stationary steam engines; and in 1840, Britain still had considerably more installed steam capacity than the rest of the world combined.<sup>6</sup> For the most part, the dramatic transformations that we associate with the nineteenth century – not to mention the quantitatively even greater changes of the post-Second World War period – still lay ahead at that point, even in Europe; in most of the rest of the world they were further off still.

Probably the most striking and fundamental discontinuity is summarized by Vaclav Smil as an “energy transition from plant fuels to fossil fuels and from animate prime movers to machines powered by fossil fuel use” (Chapter 6). There is no need to review his figures in detail here, nor the somewhat higher estimates in John McNeill’s chapter on environmental change. Suffice it to say that total human energy use has multiplied somewhere between fifty- and one hundred-fold since 1750, with the largest increases coming in the twentieth century; even that greatly understates the increase in effective human energy use, as the efficiency with which our technologies convert combustion into the motion, heat, or light we desire has increased anywhere from 35 times (today’s best diesel engine versus a 1750 steam engine) to 1,600 times (today’s halide light versus a tallow candle). Moreover, since some “engines” have been much less susceptible to transformation than others – most notably, our digestive tracts have not gained in efficiency, and putting more calories into them rapidly reaches

5 Susan Greenhalgh, “Controlling bodies and births in village China,” *American Ethnologist* 21:1 (February 1994), 1–30, provides some telling examples.

6 Robert C. Allen, *The British Industrial Revolution in Global Perspective* (Cambridge University Press, 2009), pp. 173, 179.

sharply diminishing or even negative returns – the transformation of particularly responsive sectors, such as transportation and metallurgy, have been greater than even these very large averages suggest. Paul Josephson surveys a few of the most important new technologies involved in Chapter 5.

Energy is not, of course the whole story, but it is no accident that global GDP has also increased somewhere around 100 times since 1750.<sup>7</sup> And within that huge transformation, a general spatial and temporal pattern can be discerned. It involves very high rates of growth in a few (mostly North Atlantic) places and sectors between 1750 and 1870, followed by much more rapid overall growth until the 1930s. After the interruption of the Great Depression and the Second World War, there was renewed rapid growth in those areas, combined with much more rapid diffusion to other places, most notably (though hardly exclusively) in East Asia. As Kaoru Sugihara emphasizes in Chapter 4, that diffusion – and the home-grown processes that have allowed certain areas to adapt industrial technologies to local conditions more successfully than in some parts of “the West” itself – are as central to global economic transformation as the original spurt of changes that we have typically labeled “the Industrial Revolution.”

Nonetheless, there are eighteenth-century stories that constitute a crucial first act to the modern drama of economic growth. The most famous of these is the early mechanization of cotton textile production in Britain. The major technical innovations were made in the 1750s–1770s; by 1836, the labor cost for turning one pound of cotton into the 16-count yarn used at that point for mid-priced cloth had fallen by 97 percent since 1760.<sup>8</sup> Mechanizing weaving took longer, as did applications to other fibers, while the mechanization of cotton-picking would not happen until the mid-twentieth century; but this was a landmark nonetheless. We may no longer agree with Eric Hobsbawm’s observation that “Whoever says Industrial Revolution says cotton,” because we are now prone to emphasize that other crucial sectors changed far more slowly. But that hardly changes the fact that what happened to cotton textile production in these years had few if any precedents of comparable scale and speed, while it became the precedent for a number of comparably stunning transformations in the centuries to follow. These new possibilities for

7 Angus Maddison gives us a figure of slightly over fifty times for 1820–2001, at [www.ggdc.net/maddison/other\\_books/Growth\\_and\\_Interaction\\_in\\_the\\_World\\_Economy.pdf](http://www.ggdc.net/maddison/other_books/Growth_and_Interaction_in_the_World_Economy.pdf), table 2. Assuming very little change in per capita GDP from 1750 to 1820, as seems likely, and standard estimates of roughly one-third total growth since 2001, would get the figure to about 100 times.

8 Computed from Allen, *British Industrial Revolution*, p. 185.

producing comfortable, cheap textiles shaped the lives of tens of millions of cotton growers, the calculations of many governments, and the habits of consumers worldwide.

Factories suggest cities. But until the twentieth century it was commerce and migration spurred by mechanized transportation, rather than mechanized production *per se*, that fueled most of the world's fastest growing cities. Shanghai, Chicago, Buenos Aires, and Calcutta all made things, to be sure, but all were more emporia than manufacturing centers, and all grew as fast as or faster than Manchester. Moreover, for urbanization, too, it is the twentieth century that has seen the great *quantitative* transformation, as Lynn Hollen Lees points (Volume VII Part 2, Chapter 2). As late as 1900, perhaps one-sixth of humans lived in towns and cities, representing a near-doubling since 1800; by 2000 that share would be roughly half. But in a qualitative sense, it is in the nineteenth century that most of the physical and institutional features we associate with cities today made their first appearances: large-scale sewer systems, streetcars (and the residential segregation they allowed), gas and then electrical lighting, professional police forces and fire departments (as opposed to both armies and neighborhood watch groups), vagrancy laws, factories, the central business district (again, a by-product of the streetcar), and, by the end of the century, the first skyscrapers and subways, a few automobiles, and significant (though far from universal) prevalence of indoor plumbing.

Moreover many, though not all, of these new features appeared in non-Western cities at almost the same time as they appeared in Europe and North America. Antonia Finnane's chapter, for instance, makes clear how difficult it is to assign the birth of the department store to any particular city, and that Cape Town, Moscow, and Cairo (to which one could add Havana, where El Encanto opened in 1888) were among the earliest sites for such emporia (Volume VII Part 2, Chapter 6). The first electric street lights in Europe were probably those installed in Paris in 1878; Shanghai had some by 1882, well before Athens (1902) or Warsaw (1908)<sup>9</sup>

This should not suggest that any nineteenth-century city resembled today's London, Tokyo, Mumbai, or Mexico City. For one thing, even the most modern cities in 1900 had huge and growing populations of work animals: the world's first international urban planning conference, held in New York in 1898, devoted considerable attention to the growing problem of equine waste

9 [www.nature.com/nature/journal/v132/n3345/abs/132888co.html](http://www.nature.com/nature/journal/v132/n3345/abs/132888co.html); [www.globaltimes.cn/content/813893.shtml](http://www.globaltimes.cn/content/813893.shtml); [www.anagnosis.gr/index.php?la=eng%26pageID=236](http://www.anagnosis.gr/index.php?la=eng%26pageID=236); [http://en.wikipedia.org/wiki/History\\_of\\_Warsaw](http://en.wikipedia.org/wiki/History_of_Warsaw).

disposal.<sup>10</sup> But it is clear that by the beginning of the twentieth century, cities looked radically different from the way they had looked 100 years before, and that a new template had developed for what a city should be – a template that was in many ways global. City walls disappeared from much of Europe and from some Middle Eastern cities in the nineteenth century; over 2,000 Japanese castles were removed after the Meiji Restoration; Chinese city walls mostly disappeared in the twentieth century, along with many more in the Middle East. Broader streets, often on a grid pattern, and more open space followed; a distinct profession of “urban planner” emerged, and some of these (such as Patrick Geddes, often considered the first town planner) worked in many locations around the globe. Meanwhile, a quieter but equally important milestone had been crossed in many cities: birth rates had surpassed death rates, so that at least some cities no longer needed in-migration just to maintain a constant population.<sup>11</sup>

As this summary suggests, then, by far the biggest quantitative changes have come in the last 150 years or so, and especially the last 70. With some modifications, this story holds true for many other aspects of the material world as well. Giovanni Federico begins his chapter on agriculture in 1800, rather than 1750, and charts just such an accelerating trend; moreover, while some of the developments he charts can be said to have begun earlier, some, like the heavy reliance of farmers on manufactured chemicals, have no real precedents in early modern times (Chapter 3).

The eighteenth century certainly saw considerable land clearance, especially in India, China, and parts of the Americas, but nothing like the roughly 75 percent increase in cropped acreage that would occur worldwide from 1850–1920.<sup>12</sup> Moreover, the amount of human labor, animal labor, and capital used continued to rise in most of the world through

10 Eric Morris, “From horse power to horsepower,” *Access* 30 (Spring 2007), 2–9.

11 Leo Lucassen, Osamu Saito, and Ryuto Shimada, “Cross-cultural migrations in Japan in a comparative perspective, 1600–2000,” in Jan Lucassen and Leo Lucassen, eds., *Globalising Migration History* (Leiden: Brill, 2014), p. 371, say that “the urban graveyard effect” was not overcome in either Europe or Japan until the mid-nineteenth century, and it is generally presumed that the transition occurred later elsewhere. However, ongoing research by Romola Davenport (Cambridge) and Jeremy Boulton (Newcastle) says that this happened in English cities during the century preceding. Moreover the mechanism by which the natural decrease of urban populations turned into natural increase is unclear: while most scholars place the greatest emphasis on a decline in previously very high mortality in cities, others emphasize the end of factors that kept urban birth rates very low. The data remain inconclusive, even for Europe: see, for instance, Allan Sharlin, “Natural decrease in early modern cities: a reappraisal,” *Past and Present* 79 (May 1978), 126–138.

12 John Richards, “Land transformation,” in B. L. Turner II et al., eds., *The Earth as Transformed by Human Action* (Cambridge University Press, 1990), p. 165.

the eighteenth and even much of the nineteenth century, not only overall, but even per acre. In England, where the number of workers employed per acre began to fall before anywhere else in the world, the number of hours each of those workers put in kept increasing (peaking around 1800 at over 4,000 per year), so that the modern phenomenon of “labor release from agriculture” was not yet evident; indeed labor productivity in English agriculture, though it probably rose slightly over the long haul from 1500 forward, appears to have fallen c. 1750–1800.<sup>13</sup> Even in labor-scarce, land-rich North America, it was not until the mid-nineteenth century that machines able to save lots of field labor became available, and only one (the McCormick reaper) was widely used prior to 1920, although changes in post-harvest processing, such as cotton ginning, came earlier and faster.<sup>14</sup> Only three countries, all in Europe, experienced a decline in the absolute number of farmers before 1910.<sup>15</sup> Meanwhile the technologies that would dramatically change output per acre – chemical fertilizers and pesticides, large irrigation projects, scientifically engineered seeds, and so on – were almost all products of the post-1850 world, and spread worldwide mostly after 1945. Some farmers did squeeze out higher yields per acre, even in the early part of our period, but these mostly came from bringing less intensively cultivated plots up to the levels that some nearby farmers had already achieved centuries earlier; today’s far higher yields generally had to wait until industrial inputs were available. And because modern industrial inputs allowed yields to rise while using less land and less labor, they have to some extent *reversed* the standard pattern of agricultural expansion that had generally prevailed from ancient times until at least the mid-nineteenth century.

### When did a modern world economy begin?

With some variation, we see a similar story elsewhere in the world of production – and in the aspects of “connection” that relate to the economy. Industrialization in some societies often led to soaring demand for

13 Robert C. Allen, “Economic structure and agricultural productivity in Europe, 1300–1800,” *European Review of Economic History* 3:1 (2000), 20. Gregory Clark and Ysbrand van der Werff, “The industrious revolution,” *Journal of Economic History* 58:3 (September 1998), 830–843, suggest a larger increase, but this is based on assuming that a much more intense labor regimen was already in place c. 1500 than most others think was the case.

14 Giovanni Federico, *Feeding the World: An Economic History of Agriculture, 1800–2000* (Princeton University Press, 2005), pp. 90–91.

15 *Ibid.* p. 56.

commodities they could not easily produce at home, so rubber (analyzed by Richard Tucker in Vol. VII Part 2, Chapter 18), cotton, jute, and other primary products became enormous sources of potential profit. In pursuit of that goal, landscapes were dramatically reshaped, some people displaced and others imported (under varying degrees of coercion), and territories seized by importing countries eager to have sovereign control over the places that produced goods that their factories, transport systems, and militaries needed. Many of these trades (though not rubber) began in the pre-1800 era of colonial plantations and the transatlantic slave trade, but most of them grew far larger in the nineteenth and twentieth centuries. Towards the end of the nineteenth century, another dynamic also came into play (particularly notable in the case of rubber): importing countries and companies nervous about their dependence on remote sources of important commodities put chemists to work seeking artificial substitutes, adding another wild card to what were often already wildly fluctuating markets. The second industrial revolution thus often accentuated both the peaks of commodity booms and the depth and finality of busts.

Likewise, long-distance migration, analyzed by Dirk Hoerder (Volume VII Part 2, Chapter 1), certainly grew in the late eighteenth century. Intercontinental migration, in particular, first reached a truly mass scale in this period, in a particularly grim way: the transatlantic slave trade grew sharply, reaching a peak *c.* 1780. (This was later matched by a second peak *c.* 1840, though the slave trade was by then illegal in many places, and the British Navy was trying to suppress it.) Quantitative evidence about the trans-Saharan and Indian Ocean slave trades are harder to come by, but there are reasons to believe that, as Frederick Cooper argues, these were also growing in the late eighteenth century (Chapter 21). Unprecedented numbers of people were also moving to frontiers within the larger Asian polities. At least in China, the boom took off in the late seventeenth century, and by the mid-nineteenth century, had probably included somewhere close to 20 million people. The overwhelming majority of these people were free migrants, and thus harbingers of a new kind of long-distance mass migration.

Yet even these migrations were small and local compared to the transoceanic migrations of over 50 million Europeans that would begin around 1840, and of perhaps 40 million Indians, Chinese, and others that would take off a bit later. And though war, depression, and restrictive

legislation curbed these flows, especially after 1920,<sup>16</sup> new and even larger waves of migration (featuring a wider variety of both sending and receiving countries) have become a basic fact of life in the last few decades.<sup>17</sup>

Intercontinental trade and investment – and with them integrated global markets – are also mostly qualitatively different phenomena after c. 1830. True, the volumes of goods traded across oceans soared, and shipping costs on some intercontinental routes fell dramatically even before steam. The eighteenth-century North Atlantic saw particularly large savings: as the British Navy reduced piracy, insurance rates nose-dived, and merchant ships that no longer expected to face armed raiders could use far smaller crews, saving on wages and liberating space for cargo.<sup>18</sup> But prior to about 1830, the prices of the major traded goods did not converge strongly among the major ports, indicating that intercontinental market integration was still very limited.<sup>19</sup> And the identity of many of the major traded goods is also striking: gold and silver (mostly in coins), tea, sugar, spices, coffee, tobacco, and towards the end of the eighteenth century (and especially in the nineteenth): opium. Many simply could not be produced in many of the countries where they were consumed, so competitive pressures were weak. All were expensive items, and several were at least mildly addictive – making demand relatively resistant to the high taxes, monopoly rents, and other charges that could be tacked on precisely because these were not integrated, competitive markets. (As William McAllister points out, these same factors have made the revenues from both illegal and regulated legal drugs extremely important to governments, insurgents, organized crime, and others with the capacity to organize violence and protection.) Pre-1830 growth was real, and important, but it was not sustained, rapid, and transformative growth like that which was to come after the mid-century.

The broader and more fundamental trade expansion that came after 1830 was partly due to new technologies, described by Daniel Headrick

16 Many potential destinations made Asians unwelcome in the nineteenth century, too – thus directing these flows disproportionately to what would otherwise probably have been less attractive outlets. After the First World War, European emigrants also faced an increasingly restrictive environment.

17 For some comparisons of the late nineteenth- and late twentieth-century flows, see also Giovanni Gozzini, “The global system of international migrations, 1900 and 2000: a comparative approach,” *Journal of Global History* 1:3 (Fall 2006), 321–341.

18 James F. Shepherd and Gary M. Walton, *Shipping, Maritime Trade and the Economic Development of Colonial North America* (Cambridge University Press, 1972), pp. 49–73 on productivity change; pp. 73–77, 80–85 on security, insurance costs, and ship and crew sizes.

19 Kevin O'Rourke and Jeffrey Williamson, “After Columbus: explaining Europe's overseas trade boom, 1500–1800,” *Journal of Economic History* 62:2 (June 2002), 417–456.



(Volume VII Part 2, Chapter 17), that harnessed fossil fuels (especially revolutionary in overland transport) and electricity (especially for communications). In the late nineteenth century, the cost of transatlantic shipping fell by half to two-thirds in forty years; shipping rice from Burma to Europe went from costing 74 percent as much as the rice to 18 percent; cotton, which cost 63 percent more in Liverpool than in Alexandria in 1840, cost only 5 percent more in 1895.<sup>20</sup> The results were especially dramatic for producers of perishable products, though mostly in the twentieth century. In 1900, tiny Delaware and only slightly larger New Jersey were two of the four biggest US states for agricultural output (along with New York and Pennsylvania), because only those states close to big East Coast cities could tap their lucrative fruit and vegetable markets.<sup>21</sup> Within a few decades, however, railways helped make remote California dominant among US states. Trucks pushed this process further, as did reliable refrigeration and eventually airplanes. Today Chile, South Africa, and New Zealand sell fresh fruit to northern hemisphere consumers. Diets have been transformed, and the extreme specialization made possible by global markets made twentieth-century farming, and its environmental impact, unlike anything seen before. As distance became a much less important barrier, competition intensified, and both opportunities and pressures to adopt effective practices of foreign origin increased – all features that make the “globalization” discussed by Thomas Zeiler (Volume VII Part 2, Chapter 21) something more than just an increase in long-distance contact (which has arguably been going on for millennia, albeit with periodic reversals).

But these late nineteenth- and twentieth-century changes were still unimaginable in 1750, or even 1830. The lack of price and wage convergence prior to the mid-nineteenth century, even in the Atlantic, suggests that intercontinental markets did not yet place powerful competitive pressures on most producers: a wheat grower or shoemaker near Bordeaux did not yet need to care what was happening near Philadelphia, much less near Tianjin. And this was true because a variety of forces – physical transport costs, tariffs, differences in taste, monopolies, and so on – meant that even if they traded some goods, these places were still only loosely linked economic worlds. The biggest commodities in world trade were still, as we have seen, mostly ones that could not be produced in many of the receiving ports, rather than goods

20 Kevin O'Rourke and Jeffrey Williamson, “When did globalization begin?” NBER Working Paper 7632 (April 2000). Available at [www.nber.org/papers/w7632](http://www.nber.org/papers/w7632).

21 Steven Stoll, *The Fruits of Natural Advantage: Making the Industrial Countryside in California* (Berkeley, CA: University of California Press, 1998), pp. 52–53.

that would have created more direct competition. Even in the Atlantic world, strong signs of economic globalization appear in the data only after 1840 – and in the rest of the world, even later.

But this does not mean that we can simply start the story of economic globalization in the mid-nineteenth century. For one thing, the integrating processes at work after 1840 did not appear out of nowhere. On the contrary, they ran in grooves laid down by earlier colonization, infrastructure building, marketing efforts, and so on, many of which might never have happened without the violence, slave trading, promises of monopoly profits, and other illiberal measures that, as we have seen, also created barriers to smooth market integration. In Asia, the often violent intrusion of aspiring European monopolists was closely intertwined with the expansion of interregional connections (though they had been present before, via Gujarati, Fujianese, Armenian, and other trading diasporas) – and coercion remained important in many places throughout the colonial period. And in Africa, as noted in Frederick Cooper's chapter, neither the end of the intercontinental slave trade and the rise of "legitimate" commerce, nor colonial export trades at the end of the century disentangled themselves from various kinds of violence.

The moral and intellectual underpinnings of slavery came under sustained and serious attack beginning in the eighteenth century: a true historical landmark after millennia in which countless societies had taken slavery of one sort or another to be natural and morally unproblematic.<sup>22</sup> So in this hugely important case, nineteenth-century liberalization flowed from eighteenth-century ideas rather than (as with the trade boom) the fruits of early modern violence. But even in this case, the implementation of liberal ideas has a much messier history, making it dubious to separate an era of freedom from one of coercion.

Alessandro Stanziani's chapter on abolitions is highly apposite here (Volume VII Part 2, Chapter 5). Stanziani complicates what has often been treated as a simple binary distinction – labor is either free or it is bound. He points to many gradations of both *de jure* and *de facto* status within the supposedly rigid system of Russian "serfdom" (a term which he therefore views as a misnomer), and the many ways in which millions

22. The classic work is David Brion Davis's three-volume work: *The Problem of Slavery in Western Culture* (Ithaca, NY: Cornell University Press, 1966); *The Problem of Slavery in the Age of Revolution, 1770–1823* (Ithaca, NY: Cornell University Press, 1975), and *The Problem of Slavery in the Age of Emancipation* (New York: Alfred A. Knopf, 2014).

of people modified their place in the system, in the eighteenth as well as the nineteenth century. Russian abolition thus becomes a very gradual process, which began long before 1861 and seemed to be finally nearing completion around 1900 – but was then reversed by heavy use of *corvée* in the First World War, and even more decisively by the forced labor programs instituted under the Soviet Union. He then shows how incomplete the emancipation of slaves was in the Caribbean and the United States, and how the “cotton famine” that occurred when US exports slowed to a trickle during the Civil War helped spread and intensify export agriculture based on forced labor in parts of Egypt, India, Russia, and Brazil. Forced labor did not disappear from colonized Africa, either, despite claims that this was a major goal of the colonizers (a point also made in Frederick Cooper’s chapter); nor did it vanish completely in the Ottoman Empire (or, as Stanziani might have added, in the American-ruled Philippines).<sup>23</sup> Finally, he notes that unfree labor returned on a large scale during the twentieth century, both in government-run forms (gulags and prison complexes) and in private ones (often involving children). By some counts there are more slaves today, in absolute numbers, than in 1860,<sup>24</sup> though slaves clearly make up a much smaller and less strategic share of the global labor force. Add this strongly revisionist story to a number of other forms of illiberalism (colonial extraction, epitomized by the “culture system” in the Dutch East Indies, and non-violent but still “market-distorting” measures such as high tariffs in the United States) and the institutional contrast between a long eighteenth century of mercantilism and a nineteenth century of liberal globalization becomes much harder to sustain.

### Global circulations of ideas before 1900

Even more importantly, we should remember that long before it produced integrated markets, long-distance commerce provided much of the infrastructure for very important transfers of ideas, faiths, tastes, technologies, plant, animal, and germ species, and so on. These influences did not directly depend on the physical volume of shipping in the same way that price integration (especially for bulky staple goods) did, and so could run far ahead of strictly quantitative indices of emerging global markets. They justify

23 Michael Salman, *The Embarrassment of Slavery: Controversies over Bondage and Nationalism in the American Colonial Philippines* (Berkeley, CA: University of California Press, 2001).

24 Kevin Bales, *Disposable People: New Slavery in the Global Economy* (Berkeley, CA: University of California Press, 2004).

seeing c. 1400–1800 as an era of “proto-globalization,”<sup>25</sup> in the loose sense of a world with much more frequent and influential intercontinental connections. (One might even make a case for 1000–1400, as suggested in Volume v of this series.) We may not find “globalization” in the sense that the term is often used in debates over *contemporary* political economy – the “straitjacket” allegedly imposed by tightly integrated markets on governments, labor movements, environmentalists, and others whose preferred policies might raise costs for local businesses<sup>26</sup> – but in other ways, the growing connectedness in the eighteenth and early nineteenth centuries was as consequential as what was to follow.

The Atlantic revolutions, analyzed by Jaime Rodríguez (Volume vii Part 2, Chapter 12), are perhaps the outstanding example of a more intense and consequential circulation of news and ideas during the century after 1750; the rise of abolitionism, following similar circuits, and crucial to Alessandro Stanziani’s chapter, would be another. Neither of these conversations extended far beyond the Atlantic world, though there were a few exceptions, such as Rammohan Roy’s commentary on the 1812 constitution of Cadiz.

Enlightenment science was likewise mostly an Atlantic phenomenon, as James McClellan notes (Volume vii Part 2, Chapter 8), though here there were a few more exceptions. Early environmental science received crucial stimuli from Europeans living on tropical islands such as Mauritius, who were in turn sometimes influenced by native botanists and other scientists; historical linguistics was powerfully influenced by Sanskrit scholars; and “Dutch studies” scholars in Nagasaki tried to follow (if not contribute to) Western natural science. The flows of technology spilled over beyond the Atlantic world more than those of abstract science, and were more multi-directional: military technology may have found the fastest and broadest uptake, but knowledge relevant to farming, road-building, water control, weaving and dyeing, and so on, also moved, both from West to East and

25 See, e.g., Geoffrey Gunn, *First Globalization: The Eurasian Exchange, 1500–1800* (Lanham, MD: Rowman & Littlefield, 2003); C. A. Bayly, *The Birth of the Modern World, 1780–1914: Global Connections and Comparisons* (Oxford: Blackwell, 2004); Dennis Flynn and Arturo Giraldez, “Born with a silver spoon: the origin of world trade in 1571,” *Journal of World History* 6:2 (Fall 1995), 201–221.

26 Thus a disagreement on definitions, rather than facts, underlines the debate on the history of globalization between Flynn and Giraldez and O’Rourke and Williamson. O’Rourke and Williamson, “When did globalization begin?”; Dennis Flynn and Arturo Giraldez, “Path dependence, time lags and the birth of globalization: a critique of O’Rourke and Williamson,” *European Review of Economic History* 8:1 (April 2004), 81–108; O’Rourke and Williamson, “Once more: when did globalization begin?” *European Review of Economic History* 8:1 (April 2004), 109–117.

from East to West. Variolation to prevent smallpox is an interesting example, as discussed in Erez Manela's chapter: Cotton Mather in Boston appears to have learned of it from African slaves in 1707, while a few years later Lady Mary Wortley Montagu, the wife of the British ambassador to the Ottoman court, learned of the practice there, had her own children inoculated and advocated variolation when she returned to Britain, where the Royal Society in London accurately reported that the practice was also well known among "other Asiaticks" (including Chinese). At the end of the century the superior technique of vaccination, discovered in England, would begin a long, slow journey back out from Europe to the world.

For much of our period, the flow of scientific (and social scientific) ideas from the North Atlantic world has been more consequential than flows in the other direction, or between non-Western locales; in the late nineteenth and twentieth centuries, these flows have largely defined the categories, assumptions, and most influential theories of what is now global science, though that is changing in some fields. Even at the peak of Western predominance, however, information from elsewhere – and sometimes the mere fact of knowing that there were "elsewheres" where assumptions based on Euro-American experiences did not hold – were often important stimuli. While it would be tiresome to mention every occasion on which the existence of global interactions influenced some local or regional occurrence, one of the premises behind these volumes is that these less tangible circulations, often made possible by more material circuits, are an essential part of the background to the many chapters that deal with social, cultural, and intellectual phenomena, and with many events and trends that seemed to play out primarily on regional or subregional levels. We shall consider more of them shortly.

## Destruction again

First, however, it is worth extending the story of destruction to the present. Interestingly, while the mid-eighteenth-century wars we noted at the beginning of this chapter were unprecedented in their geographic sprawl and financial cost, they did not make this a particularly destructive century. Taken all together and on all fronts, the Seven Years' War, the American Revolution, the French Revolution, and the Napoleonic Wars probably involved fewer deaths than the strictly European Thirty Years' War (1618–1648) had; without the Napoleonic period (which strictly speaking

belongs to the nineteenth century), the numbers are not close. Jack Levy's overall figures for intra-European conflicts suggest that the eighteenth century saw significantly less death from wars than the seventeenth, and the nineteenth century much less still.<sup>27</sup> The Qing wars of expansion in the eighteenth century ended with the near extermination of the Zunghars, but even so they caused a small fraction of the death toll that the seventeenth-century wars which had put them on the throne exacted.<sup>28</sup> In both cases, improved logistics were a major factor, though in different ways. European armies of the eighteenth century were much more reliably provisioned than their seventeenth-century counterparts had been (both for institutional reasons and because harvests were better) and so caused far less damage to civilian food supplies; the Qing were able to keep their wars with the Mongols far out in the steppe – where population densities were far lower than in the areas contested during the Ming–Qing transition – and in most cases feed these expeditionary forces far more reliably than the Ming had been able to do. The White Lotus Rebellion of 1796–1804 marked the return of prolonged fighting to China proper (though not yet to its most populous parts), and prefigured the vastly higher casualties that this part of the world would experience in the nineteenth century: no good numbers are available, but scholars agree that at least 1 million people died in the suppression of this uprising.<sup>29</sup> Reliable figures seem to be harder to come by for South Asia – especially for civilian casualties – but those available for even the larger battles of the wars of succession fought as the Mughal Empire broke up and those between the British and various post-Mughal successor states, suggest that while financial costs kept rising, casualties did not: A widespread strategy of seeking to incorporate enemy forces rather than destroy them probably helped in this regard (while working to the advantage of Europeans in a position to offer hard currency to induce desertions).<sup>30</sup>

27 See the summary in Charles Tilly, *Coercion, Capital, and European States, AD 990–1992* (Malden, MA, and Oxford: Wiley-Blackwell, 1992), pp. 72–74.

28 Peter Perdue, *China Marches West: The Qing Conquest of Central Eurasia* (Cambridge, MA: Harvard University Press, 2005), p. 285, suggests perhaps 180,000 Zunghars killed, and another 240,000 lost to smallpox. In one of their worst defeats, the Qing lost 8,000 of their own troops, plus heavy casualties among their Mongol allies (ibid. p. 254). By contrast, the death toll from just the late Ming rebellion of Zhang Xianzhong in Sichuan province was well into the millions.

29 Gu Haicheng, *Chuan Shan Chu Bai lian jiao luan shi mo* (Taizhong, 1976), p. 1.

30 See, for instance, Kaushik Roy, *The Oxford Companion to Modern Warfare in India* (Oxford University Press, 2009), pp. 15–16, 31–32, 48, 69–70, 80, 82, 86, 92, 97; Roy, “The armed expansion of the English East India Company, 1740s–1849,” in Daniel P. Marston and Chandar S. Sundaram, eds., *A Military History of India and South Asia* (Bloomington, IN:

In Europe, the period 1815–1914 was famous for relative peace. In numerical terms the nineteenth century's major killing fields lay in the Qing empire, where four enormous civil wars between 1851 and 1878 quite likely took 50 million lives (and maybe many more).<sup>31</sup> Global currents certainly mattered to those wars. For instance, the leader of the Taiping, the first, largest, and most consequential of these uprisings, professed an ersatz millenarian faith influenced by a Baptist missionary from Tennessee, and claimed to be the younger brother of Jesus, while the society and dynasty he attacked had been weakened in a number of ways by the opium trade and first Opium War (1839–1842). But in many ways, these conflicts were *sui generis*. The few post-1850 wars that pitted two at least partially industrialized societies against each other – above all, the American Civil War (1861–1865) but also the Franco-Prussian War (1870–1871) and the Russo-Japanese War (1904–1905) – hinted at the enormous destructive potential of such conflicts, but it is only in retrospect that the portents seem obvious. Even the 600,000-plus death toll in the American Civil War was not much higher than in Napoleon's six-month invasion of Russia; the most striking novelty was probably in the armies' mobility, not their lethality. Napoleon's troops and supplies moved only slightly faster than Julius Caesar's; by contrast, when they were near railroad lines, which they built and rebuilt with amazing speed, General Ulysses S. Grant's Union Army could move many times faster. The physical and mental gap between this world and that of the trenches fifty years later in the First World War was enormous.<sup>32</sup>

Outside of China, the most destructive and typical wars of the nineteenth century were primarily colonial conflicts or campaigns of expansion by white settler societies. In many of these wars, relatively small numbers of well-armed Europeans, often assisted by local auxiliaries recruited from the losers in prior battles among the indigenes, killed shockingly high percentages of both combatants and civilians while suffering relatively light casualties themselves. The Java War of 1825–1830 took perhaps 200,000 Javanese lives, in a part of the island with perhaps 2 million inhabitants, and was a portent of more to come as European colonial expansion, largely

Indiana University Press, 2007), pp. 1–15; Gurcharn Singh Sandhu, *A Military History of Medieval India* (New Delhi: Vision Books, 2003), pp. 812–836.

31 Cao Shuji, *Zhongguo renkou shi* (Shanghai: Fudan daxue chubanshe, 2000), Vol. 5, p. 553, represents the high end of reputable estimates, at over 70 million for the Taiping alone; most scholars think that this includes very large numbers of people who were still alive, but were no longer on the population registers for various reasons.

32 William H. McNeill, *The Pursuit of Power: Technology, Armed Force, and Society Since A.D. 1000* (University of Chicago Press, 1982), p. 223.



ejected from the Americas, focused anew on Asia and later Africa. Dutch losses of perhaps 7,000 (plus 8,000 “native” auxiliaries) were not trivial for a small country,<sup>33</sup> but they provided an early example of how lopsided the death tolls would be in many of these technologically one-sided conflicts, even when the colonized fought hard and creatively and had the disease gradient on their side (as they often did in Africa, but emphatically did not in temperate zone wars like those in North America). About 2,000 Anglo-Indians seem to have died in the rebellion of 1857–1858; figures for Indian deaths vary wildly, but the lowest are around 100,000 and one recent book (which includes various British acts of vengeance occurring as much as a decade later) suggests that the toll could have been 10 million.<sup>34</sup> The Herero wars/genocide at the beginning of the twentieth century provide another example: they cost the German colonizers of Namibia perhaps 1,400 soldiers and civilians, while perhaps 70,000 indigenous people were starved or slaughtered. At Omdurman in Sudan, the British and their Egyptian auxiliaries lost 40 dead, their opponents 11,000, all in a few hours.<sup>35</sup> There were cases where indigenous polities ousted or resisted colonizing forces – Haiti at the beginning of the century and Ethiopia at the end are the most striking examples – but these were very much exceptions.

Where full-fledged conquest of existing political units would have been more difficult and/or likely to touch off serious conflicts among the Europeans themselves – for example in China, Japan, the Ottoman Empire, the newly independent states of Latin America, or Siam – nineteenth-century Europeans generally avoided long wars, settling for short punitive expeditions and informal empire. As R. Bin Wong’s chapter on “Self-strengthenings” explains [Chapter 14], this allowed these counties to protect their sovereignty by making partial accommodations to European norms, while attempting – with varying degrees of success – to “integrate emulation of Western practices producing power and wealth with domestic political priorities and economic institutions.” He quite rightly emphasizes that in East Asia in particular, this worked well enough to make various indigenous

33 Casualty figures from J. A. de Moor, “Warmakers in the Archipelago: Dutch expeditions in nineteenth century Indonesia,” in J. A. de Moor and H. L. Wesseling, eds., *Imperialism and War: Essays on Colonial Wars in Asia and Africa* (Leiden: Brill, 1989), p. 52.

34 Amaresh Misra, *War of Civilisations: India AD 1857* (New Delhi: Rupa & Co., 2008); for a review see Randeep Ramesh, “India’s secret history,” *The Guardian*, August 24, 2007, [www.theguardian.com/world/2007/aug/24/india.randeepramesh](http://www.theguardian.com/world/2007/aug/24/india.randeepramesh).

35 Daniel Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (Oxford University Press, 1981), p. 118.



ideas and practices of continuing global relevance, down to today. For our current purposes, what matters most is that this meant that even the armed clashes between Europeans and the strongest non-European states in the nineteenth century tended to produce relatively limited casualties compared to the bigger conflicts in outright colonies, much less the general wars of the eighteenth century: perhaps 15,000 deaths on both sides of the Sino-French War (1883–1885), 20,000 in the first Opium War (1839–1842), and 25,000 in the French attempt to recolonize Mexico (1862–1867). (The Russo-Turkish wars are something of an exception, with high casualties.) Because the European powers did not fight each other (or their New World descendants) much between Waterloo and Sarajevo, nineteenth-century wars never became global in the same sense as those of 1754–1814. This, of course, also meant that those fighting Europeans rarely had the kinds of allies that they had sometimes had before; US support for anti-Spanish rebels in Cuba and the Philippines in 1898 was as exceptional as it was brief. At the end of the nineteenth century – about the time that Ethiopians with access to European guns were defeating Italian invaders, and the forces of Samori Touré, which had purchased (last generation) rifles, were holding out for twelve years against the French in West Africa – Europeans signed three treaties (in 1890, 1892, and 1899) to ban sales of sophisticated arms to Africans.<sup>36</sup>

But wars were linked in other ways. Global markets emerged for both arms and soldiers' labor. Men who could explain how best to use the new technologies were often richly rewarded: American Civil War veterans and discarded weapons wound up in China, Mexico, Japan, and elsewhere, for instance. The unprecedented capital-intensity of weapons manufacture meant that any firm limited to one national market would be unable to compete with the prices of those who sold more promiscuously. While great powers built up unprecedentedly bulky bureaucracies and military-industrial complexes, preparing for potentially massive wars with each other, many other countries counted on being able to raise enough modern troops for their purposes quickly, through the market.

For the two largest imperial powers, Britain and France, colonial wars were frequent enough to justify a more permanent in-house establishment – but it needed to be cheaper than an army of Europeans could be. The solution was the creation of mobile colonial forces with European officers

<sup>36</sup> Ibid. pp. 110, 118–120.

and enlisted men drawn from selected minority groups deemed to be both loyal and martial in spirit. For the British these were primarily Sikhs and people from various Indian highlands; the French used Senegalese, supplemented by a “Foreign Legion” of displaced people from all across Europe, including defeated Polish revolutionaries, Swiss mercenaries from disbanded royal guard units, and so on. These forces fought most of these powers’ colonial wars, handled a good deal of policing, and would eventually (in the twentieth century) fight in European conflicts, too. They represented, in a way, permanent equivalents of the kind of short-term emergency resort to the global soldiering market that was all that a nineteenth-century China or Paraguay could afford.

The years 1914–1945 saw the return of global wars, now waged with both the emerging technologies of the nineteenth century – high explosives, rapid-fire arms, telegraphs, and railways – and a host of distinctly twentieth-century ones including airplanes, poison gas, tanks, radios, and so on. The new weapons ultimately included atomic bombs, which, as Paul Josephson notes in his chapter, may have been used at Hiroshima and Nagasaki more because this gave a chance to demonstrate what they could do than because they were needed to end the war. Thanks to nineteenth-century empire building, national consolidation on the European mainland, and Russian and US landed expansion, the major powers fighting each other in the twentieth-century world wars were bigger than ever. They were also much better equipped to know what resources they had, to force people to deliver them, and to move them wherever commanders wanted them. All of this meant that twentieth-century militaries could strike with unprecedented force, and often felt compelled to do so. As Richard Overly makes clear, the results were astonishing death tolls, for both soldiers and civilians, and in spite of the fact that vastly improved medicine sharply reduced the toll from wounds and diseases (Volume VII Part 2, Chapter 13). Casualty figures cannot be precise, especially for civilians (more of whom succumbed to war-related food-supply failures than to bullets *per se*), but the likely total exceeds 60 million dead for the Second World War alone.

These staggering numbers are not purely the result of the number of combatants, or their increased technological and organizational capacity. One indicator of this is that the twentieth century also stands out for the number of civilians killed – deliberately or with reckless indifference – by their own governments, by government-connected groups such as paramilitaries, and by would-be governments, such as rebels and invaders.

In some of these cases, the goals of the killers are unclear or the deaths were incidental to some other project. In others, analyzed by Mark Levene (Chapter 16), the reduction, removal, or even extermination of a particular population group was an end in itself. Robert Strayer, focusing specifically on fascism and communism (Chapter 17), speaks of a shared goal of “cleansing” the world of groups whose very existence was thought of as incompatible with desired social transformations; in the case of fascism in particular, he also notes a “celebration of violence and war” as “ennobling” (at least for men).

As Levene notes, mass killings are hardly unique to modern times; nor do all such killings fit our usual understanding of “genocide.” Many modern mass killings were relatively straightforward consequences of resource grabs: this pattern may have reached a particular intensity during the late nineteenth-century “scramble for Africa” and other attempts to extract tropical resources from areas in which few whites wished to settle and few indigenous people wished to work for very low wages. (The Belgian Congo, also mentioned briefly in Richard Tucker’s chapter on rubber and Frederick Cooper’s on Africa, is perhaps the most notorious example, resulting in roughly 5 million deaths.) But this was hardly the first peak period for such killings, with the sixteenth- and seventeenth-century conquests in the Americas being the most obvious precedent. Nor are killings aimed at firmly subordinating or eradicating an “enemy in our midst” unique to modern times, by any stretch of the imagination.

Still, it seems reasonable to link the increased number of genocides in the twentieth century to various legacies of the nineteenth, as Levene does. The increasing prevalence of the national state, rather than the multinational empire, as the supposedly ideal form for a modern polity, and of nationalist ideologies (discussed by Aviel Roshwald in Chapter 12) aligned a number of actual and would-be states with increasingly strident calls for ethnic homogeneity within the boundaries of a territorial state: calls that could not be met without massive, violent uprootings of various minorities. It is no accident, then, that the greatest concentration of twentieth-century genocides occurred in the lands that had recently been ruled by the Habsburg, Ottoman, and Romanov empires, or that more recent genocides have been concentrated where post-colonial elites have tried to make “nations” within European-drawn boundaries that did not map onto communal ones. Second, the often extreme violence of “high imperialism” itself – facilitated, as we have seen, by new technologies that sometimes allowed small European forces to massacre far larger forces with impunity – may have encouraged certain attitudes that found their

way back to Europe itself in the twentieth century, as Danielle Kinsey suggests in her chapter on imperialism (Chapter 13).<sup>37</sup> Third, the racial and social evolutionary thinking that reached full flower amidst colonial expansion – and which was subsequently adopted and adapted by many non-Europeans as well – provided rationalizations by which the extermination of certain “inferior” groups was inevitable, or even desirable. The mixture of these various factors – resources grabs, quests to eliminate “aliens,” “traitors,” or “racial taints,” and rationalizations that claimed one was simply acting as the agent of historical/evolutionary necessity – were particularly likely to form a toxic brew when rulers perceived themselves to be “behind” in a merciless competition with better-established or larger empires or nations; this too, as Levene notes, was a condition recreated over and over again by the rapid change and increasingly global state system of the last century and a half.

Finally, we should note that it is not only other humans that people have destroyed on an unprecedented scale in modern times. Here a firm line between “production” and “destruction” becomes impossible to draw. The expansion of farmland or the creation of suburban housing tracts are often simultaneously cases of deforestation, for instance; the expansion of human habitats in place after place has eliminated habitats for elephants, lions, and other large mammals. And not surprisingly, it is the twentieth century that stands out here, though one can certainly trace earlier origins. As John McNeill’s chapter shows, human impacts on the environment were already increasing sharply in the nineteenth century, but have accelerated much more sharply in the twentieth. Among other things, the rate at which other species are going extinct is now higher than at any other point in the last 65 million years, and still accelerating: that the focus of deforestation has switched from the temperate zones in the eighteenth and nineteenth centuries to the tropics in the twentieth has made matters worse, as an intact patch of Amazonian forest might have 100 or even 1,000 times as many resident species as a similarly sized patch in a Canadian forest. Meanwhile climate change, largely driven by our still-increasing consumption of fossil fuels, may well have reached a point of no return, and seems more likely to be a self-reinforcing than a self-limiting process (with, for instance, the melting of sea ice reducing the rate at which

37 For a case study weighing the colonial experience along with other factors, see Isabel Hull, *Absolute Destruction: Military Culture and the Practices of War in Imperial Germany* (Ithaca, NY: Cornell University Press, 2005), pp. 3–90, 329–333. A more general argument about European genocides as imperialism come home may be found in Hannah Arendt, *The Origins of Totalitarianism* (New York: Meridian, 1958).

solar radiation is reflected back into space, and the melting of permafrost potentially releasing vast amounts of methane currently trapped underneath). The final impact of our era's burst of production and destruction is thus unlikely to be felt, much less measured, until far in the future (Map 1.2).



Map 1.2(a) Basic political map of the world in 2015



Map 1.2(b)

## Connections – and connectedness – beyond production and destruction

These three themes, highlighted in our title, suggest certain fundamental issues in post-1750 history, but nobody would suggest that they represent the

totality. Indeed, for most of our authors, they may help frame the view, but are not themselves the object of interest.

As we move away from foregrounding material production and destruction, it may be useful to say a bit more about some less material aspects of connection as well. Material connections can be quite real without those who are connected being aware of them: that farmers on different continents both produced for the same market, or that a Bengali *nawab* and an Ojibwa chief simultaneously fought the British Empire, or that emissions from Chinese factories producing for US consumers may increase flooding on Pacific islands, might be far more salient in scholars' minds than in those of the people involved. In other cases, though, even people who will never meet and may have only weak material connections to each other can feel a sense of connectedness: a feeling that they are part of a community (or sometimes a rivalry) that has a powerful influence on their sense of purpose, morality, and daily lives.

The most enduring examples of such mental constructs involving people with whom one has no in-person contact – what Benedict Anderson called “imagined communities” – are almost certainly religious, and despite some claims that the modern period is distinctly “secular” (powerfully criticized by Peter van der Veer in Volume VII Part 2, Chapter 7), such communities remained extremely powerful. They were not *replaced* by other imagined solidarities such as nations, but became intertwined with them.

The eighteenth century did indeed see decline or stagnation in some missionary efforts – Islamic expansion in Asia slowed with the crises of the major Islamic empires there, and the once omnipresent Jesuits were expelled from much of the non-European world (including Latin America) over the course of the century. But more generally, the eighteenth century saw further growth in what we now think of as four huge religions – Buddhism, Christianity, Hinduism, and Islam – at the expense of many smaller ones. Islam made significant further inroads in Sub-Saharan Africa; both Catholic and Protestant Christianity became more firmly established in the interior of the Americas, and Orthodox Christianity advanced at the expense of various kinds of shamanism in Siberia and Central Asia. The post-Napoleonic period then saw a massive expansion of Protestant evangelizing in particular, paralleling European expansion of other kinds. By the end of the century there were, by one estimate, 100,000 Christian missionaries in Africa alone, a number which dwarfs those for missionaries in India or China, which were at the time

considerably more populous.<sup>38</sup> Whether because of that concentration of effort or not, it was in Africa (much more than in any part of Asia, or sparsely populated Polynesia, which also drew many missionaries) that both Protestantism and Catholicism made their largest gains during the nineteenth and twentieth centuries – indeed, their largest since the conquest of the Americas. (Given the current rapid expansion of Christian numbers in China and the large successes certain Protestant denominations have already had in Taiwan and South Korea, the longer-run story may look different within a few more decades – but this also depends on what is, at the moment, intensified conflict between Christians and Muslims in parts of Africa.) In many cases, this expansion involved syncretic fusions with more local forms of worship, so that these global religions also became more internally diverse, and often faced complex questions about how much diversity they wished to contain within their particular fold.

The late nineteenth century, meanwhile, saw the institutionalization of the very category “world religion” – both as an object of study and as a community that could be expected to behave and be treated in certain ways. It is no accident, for instance, that twentieth-century Buddhists formed Young Men’s and Women’s Buddhist Associations, modeled on the YMCA and YWCA, or that Muslims formed a Red Crescent Society modeled on the Red Cross. Nor is it a coincidence that the officially atheistic People’s Republic of China guarantees toleration to (world) “religions” in its constitution, while outlawing (local) “superstition.” Still, we should not imagine that the new models of what a world religion should look like were simply imported and imposed. Rather, these models created occasions for contention, with various local actors seeing them as a new opportunity and/or threat within longer histories of contestation. (This was, of course, also true of imported models in many other areas of life, including some which were directly sponsored by colonial rulers – a point emphasized in Danielle Kinsey’s essay on imperialism, and in R. Bin Wong’s essay on the “self-strengthening”

38 Bayly, *Birth of the Modern World*, p. 349. There were probably not many more than 2,000 Christian missionaries in China in 1900, though there were 8,000 Protestants alone by 1925; see Jessie G. Lutz, “China and Protestantism: historical perspectives, 1807–1949,” in Stephen Uhalley and Xiaoxin Wu, eds., *China and Christianity: Burdened Past, Hopeful Future* (Armonk, NY: M. E. Sharpe, 2001), p. 187. Daniel H. Bays, “Christianity in China 1900–1950: the history that shaped the present,” see [www.globalchinacenter.org/analysis/christianity-in-china/christianity-in-china-19001950-the-history-that-shaped-the-present.php](http://www.globalchinacenter.org/analysis/christianity-in-china/christianity-in-china-19001950-the-history-that-shaped-the-present.php). Numbers for India appear to be somewhat smaller.



efforts of some states pressured but not actually colonized by nineteenth-century Europeans.)

A far more novel development of imagined communities in our period has been the expansion of large-scale connectedness based on non-religious ties: a process facilitated by new communications technologies, and very much tied to the projects of political and commercial expansion that we have emphasized in this Introduction. In many ways a history of the construction of “peoples” might well have its most important inflection point before our period begins, with the encounters of the late fifteenth and sixteenth centuries; our goal here is narrower, and focuses on a few types of groups that have become far more salient since c. 1750.

The most consequential of these forms has been the nation (often, though not always, coterminous with a national state), as described by Aviel Roshwald in his chapter. As he (and many others) emphasize, while no single instance of nationalism is a global phenomenon (by definition), nationalism as a type has had an astonishing triumph. Today, the national state has become the taken-for-granted default mode of political organization throughout the inhabited world – a sudden transformation after millennia in which most people lived in multinational empires most of the time.<sup>39</sup> Even socialism and communism – the strongest movements that prophesied a future where nations would be superseded as foci of political identity – were unable to stick to that principle while holding or seeking power in specific countries.

Meanwhile, though there has been a growing body of law and of organizations that place limits on the actions of nations (discussed by Anthony Clark Arend in Chapter 11), most have emerged from agreements among national governments, and most do not aim at redirecting people’s primary political identification away from the national level. Perhaps even more striking, the national idea in general thus far seems not much weakened by the numerous human catastrophes that have ensued when people attempted to create relatively homogeneous nations amidst real patterns of residence that were anything but homogeneous: in Eastern and Central Europe, in post-colonial South Asia, Africa, the Middle East, and so on. Indeed, failure along these lines has often led to a redoubled commitment to achieve nationality/modernity: here Roshwald’s observations recall Levene’s arguments about the fates of minorities who come to be seen as obstacles to “catching up,” and

39 E.g. Jane Burbank and Frederick Cooper, *Empires in World History: Power and the Politics of Difference* (Princeton University Press, 2010).

Strayer's about the intensity with which communist and fascist states, in particular, pursued internal homogeneity.

While some of the growth of nationalism can be attributed to tools wielded by governments – mass schooling, conscription, government-sponsored monuments, and so on – entrepreneurs seeking broader markets have also played a role: book and newspaper publishers, for instance. Meanwhile, though, commercialization and mechanized production have also helped create other kinds of imagined communities, tied even more directly to products; in these cases, the particular communities have been far more ephemeral than nations (and some never took hold at all), but the broader phenomenon they represent has continued to grow in scale and importance.

With new factories producing unprecedented amounts of goods, both entrepreneurs and social thinkers worried about whether there were enough people willing and able to buy them all. Politicians and intellectuals proposed solutions ranging from tariffs to imperial expansion to economic redistribution to revolution. Probably the most powerful change, however, was the rise of large numbers of professionals who specialized in expanding demand for particular products. The creation of professional advertising agencies was the most obvious manifestation of this, but the rise of marketing was a larger phenomenon, connected to a number of topics that appear scattered through our essays: department stores and fashion, communications and media, new “culture” industries such as those marketing recorded music and sporting events.

There is no consensus among social scientists about what these marketing efforts do. At one end of the spectrum, many economists see them as simply providing neutral “information” that helps people pursue their already given “preferences.” At the other, some people have worried about manipulation by “hidden persuaders.” What seems most likely is a more complex relationship, in which marketing efforts which suggest that particular kinds of consumption are conducive to assuming particular social roles intersect with the efforts of consumers seeking to define and signal who they are to a variety of local and translocal audiences. (Bernhard Rieger's chapter on the automobile describes how important associations with freedom, adulthood, and a variety of emotionally charged states – as opposed to mere functionality – are to the demand for specific car models, and for cars in general [Volume VII Part 2, Chapter 20].) Indeed, some scholars have pointed to signs of a seventeenth- to eighteenth-century “consumer revolution” in parts of Europe, East Asia, the American

colonies, and perhaps elsewhere, focusing on new fabrics and clothing styles, exotic foods and drugs (sugar, tobacco, coffee), and various sorts of household goods.<sup>40</sup> Such changes clearly pre-dated mass production and mass-marketing, reflecting increased scope for personal consumer choices made possible by thickening markets (including intercontinental ones) and greater social mobility.

But however we think about the agency of particular people, mass-marketing has clearly been part of a more general transformation: the de-localization and de-personalization of people's imagined peer groups. Increasingly, people have come to see themselves as part of large-scale groups most of whose members they will never meet. Thus, they have increasingly taken their behavioral cues from what they believe other members of that group do, orienting their dress, eating, personal hygiene, entertainment choices, and so on to what is perceived to be standard for a nation, ethnic group, generation, class, or other group to which they belong or wish to belong. In the process, cues from biological kin and immediate neighbors have become less central, though they certainly remain important; and since nobody will ever meet most of their fellow Brazilians, "leaders," or members of "the Pepsi generation," experts who claim to know what will help somebody be recognizable as a member of these groups, and/or can craft convincing images of how to fit into them, are conduits for very powerful forces, however one thinks those forces operate.

For current purposes, then, what matters most is that the increased importance of non-local reference groups is a crucial characteristic of the modern era. It is not unique to that era. Elites, in particular, had often adopted exotic fashions that aligned them with remote peers whose tastes they fancied more appropriate to their elevated station than those of most people around them; and on the eve of our era, Montesquieu had observed that the anonymity of the large city increased the potential returns to be reaped by copying the outward appearance of a status group above your own.<sup>41</sup> But a variety of new material possibilities in the period since c. 1850

40 Jan de Vries, *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (Cambridge University Press, 2008); Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton University Press, 2000), pp. 91–106, 116–162; Susan Hanley, *Everyday Things in Premodern Japan* (Berkeley, CA: University of California Press, 1997); Wu Renshu, *Pinwei she hua: Wan Ming de xiaofei shehui yu shidafu* (Taipei: Linjing chuban gongsi, 2006); T. H. Breen, "Baubles of Britain: the American and consumer revolutions of the eighteenth century," *Past and Present* 119 (1988), 73–104.

41 Montesquieu, *The Spirit of the Laws*, trans. Thomas Nugent, 2 vols. (London: G. Bell and Sons, 1888), Vol. 1, pp. 95–97.

gave these dynamics unprecedented power. Cheap reproduction and dissemination of sounds and images (and even cheaper printing, on both paper and fabrics), plus transportation cheap and fast enough to globalize the distribution of even perishable foods, fueled consumer revolutions far broader and deeper than those of the pre-1800 world. Government-organized elementary and secondary school systems brought age cohorts together and made it possible to aim standardized messages at them. Immigrants to cities and/or foreign lands entered places where their parents were quite obviously not reliable guides to expected behavior. All of these developments, and many others, encouraged people to place themselves in imagined communities of various shapes and scales, and orient their daily lives accordingly.

Increasingly powerful governments emphasized the nation, and have had plenty of tools to reinforce that reference group. Compulsory education (a nineteenth- or twentieth-century creation throughout the world) is only the most obvious, to which one might add monument-building and, in the twentieth century, broadcasting. But as legal space opened up for voluntary associations (at least politically innocuous ones) and new communications techniques made it easier for associations to transcend localities, imagined communities tied to particular activities proliferated alongside those (such as religions) tied to more general life-orientations, and often in complex relationships to both nationalism and commerce.

In the process, such associations often transformed the activities on which they were built: as Susan Brownell points out, as basic an aspect of today's athletic culture as the concept of "records" presumes the existence of an imagined community to which people running 1,500-meter races in Kenya, Canada, and Korea all belong (Volume VII Part 2, Chapter 10). Today, with the aid of jet transportation, some very large sections of these communities may briefly come together in person: over 50,000 people finished last year's New York City Marathon. But in most cases – and until recently – it was only the most elite members of national or international athletic communities who met each other regularly, while a much wider imagined community became perfectly real as spectators for such events, purchasers of magazines and running shoes, and so on. More occasionally, all or part of such groups might manifest themselves in local public affairs (through a fund-raising charity race or as a pressure group for maintaining trails), or even international ones (in disputes over boycotts, segregation, etc.). That such associations matter to more than just the particular activity they focus on is evident from the intense efforts of many twentieth-century states to organize their

own sports associations, control the terms of participation in international competitions, and so on.

Other examples abound, though they differ crucially in their specifics. Timothy Taylor's account of the commodification and globalization of music, for instance, bears certain resemblances to Brownell's account of sports (Volume VII Part 2, Chapter 9): the commodification of leisure activities, new technologies that allow for spectatorship at a distance, the spread of particular sports or musics through imperialism and migration, the emergence of globally recognizable superstar performers. But the very different mechanics of performing and consuming music as opposed to sport, the greater ease of mixing genres as opposed to games, and the much smaller role of measurement and competition in music have given the story of globalization and commodification of music a very different shape from that of sports. On one hand, music seems more multi-directional, with music rooted in economically poorer parts of the world playing a far larger role in the musical culture of today's rich countries than do sports with non-Western origins. On the other, it raises issues that seem to have few clear analogues in sports, such as increasingly private and atomized modes of consumption.<sup>42</sup>

Lalitha Gopalan's discussion of global cinema (Volume VII Part 2, Chapter 11) also highlights the cross-referencing of films from one country by films made in others, while noting that this exchange takes place across a global landscape that is anything but equal.

In the big picture, though, it is the shared characteristics that probably matter most: the dizzying proliferation of imagined communities of various sizes and scopes and their complex relationships to those parts of daily life that are still lived locally. If, as one of us has written in a different context, "Human history is an evolution from simple sameness to diversity to complex sameness,"<sup>43</sup> our period is the one in which a predominant direction towards complex sameness became evident; a world history ending in 1750 might reasonably have placed greater emphasis on a still-proliferating diversity, despite some incipient signs of convergence. And a big part of this

42. A very successful book about the decline of community in the United States, published in 2000, was titled *Bowling Alone* (by Robert Putnam). The title was effective precisely because the idea of engaging in sports without being part of a group seems particularly poignant. A title about listening to or even playing music alone would hardly have the same effect today, though it might have several decades ago.

43. J. R. McNeill and William H. McNeill, *The Human Web: A Bird's-Eye View of World History* (New York: Norton, 2003), p. 322. Although he might better have written *toward* complex sameness, on the grounds that we aren't quite there yet, and might never be.

change in momentum has been the way in which expanded production, cheaper and better communication, intensified supralocal competition, and stepped-up efforts to make people trust, participate in, and conform to the norms of media-based communities have reinforced each other ever more strongly.

### Diversity, multiple scales, and limits of convergence

As just noted, imagined or mediated communities can have wildly varying scales, scopes, durability, and degrees of emotional power. They have also collided and recombined in many ways with what is still enormous variation in the local realities of people's lives. We now turn, then, to histories in which the role of face-to-face contacts has remained more central, and global connections have been as likely to maintain or even produce new differences to be compared as to move towards complex sameness.

It is probably no surprise that sexuality, discussed by Julie Peakman (Volume VII Part 2, Chapter 4), is an area in which continued and perhaps even increasing diversity seems at least as marked as any tendencies towards global convergence. Sexuality is, after all, an intensely personal matter; it has also loomed large in the strictures of the world's diverse and influential religions, and in other moral systems on which societies have staked their claims to be considered "civilized" and worthy of raising future generations. And while many other aspects of life have been partially standardized by being yoked to increasingly globalized political and economic competition, the most truly global trend of modern times with respect to sexuality is that it has become increasingly *decoupled* from reproduction – thanks largely to effective contraception, and to increasing numbers of people living well beyond their reproductive years – in which governments and social planners have a particularly intense interest. (Alison Bashford's chapter describes the sometimes surprising political coalitions that made contraception widely available, based on shifting combinations of geopolitical and gender-political concerns.) So while sexuality is not wholly immune from the pressures towards convergence and "complex sameness" we have noted elsewhere – medical discourse has certainly become less varied than it once was, for instance, and advertisers and globalized culture industries have probably done a good deal to reduce the diversity of ideas about what kinds of bodies are sexually desirable – this is an area in which globally shared trends have probably created more room for diversity than they have eliminated.

Peter Stearns's chapter on family (Volume VII Part 2, Chapter 3) finds considerably more convergence than Peakman's: not surprisingly, since families remain central to precisely those reproductive functions (in the broadest sense) from which sexuality has become partly separated. Some of the global convergence in family matters, Stearns emphasizes, is due to widely shared socio-economic processes such as urbanization and the rise of wage labor, which have changed the functional imperatives faced by both individuals and families; some is due, as he also notes, to attempts by imperial powers to promote or even impose on the rest of the world values that they considered intimately linked to their superiority, such as monogamy and opposition to child betrothals. Given these interacting forces, Stearns sees many global, or nearly global trends in family life: away from child labor and arranged marriage, for instance, and towards monogamy, fewer children, and an increasingly diffuse and unreliable sharing of responsibility for the care of the elderly. However, he also emphasizes the continued importance of many regional, ethnic, and class differences, and notes that differences in these areas are often something that social groups are extremely proud of, rather than occasions for defensive worrying about being "behind." This latter reaction exists, too, of course, and was particularly pronounced among colonial nationalists in the early twentieth century – often placing them in the awkward position of promoting to their skeptical compatriots the same family reforms favored by the imperial powers against which they agitated in other contexts. Given the obvious influence of families and upbringing on all people, their place at the intersection of biology and culture, and the high stakes that have often attached to arguments about "race," "civilization," "backwardness," and so on, it is not surprising that such debates have often been explosive.

It is also important to note that families (and other face-to-face groups) have often strengthened themselves by use of the same technologies which we mentioned above as powerful tools for those forging supralocal, impersonal solidarities. Photographs, cheap mail service, and mass literacy helped strengthen the bonds between many a post-1850 migrant and those with whom they hoped to reunite, as cell phones and email have done for twenty-first-century migrants. (Photography and cell phones, in particular, spread very rapidly across the globe, and also became cheap enough for ordinary people relatively quickly.) And even for those who remain in the same place, technologies that reliably preserve what a person looked or sounded like years ago have undoubtedly deepened pre-existing, face-to-face communities. Such communities were, in short, sites not merely of enduring

“tradition,” but also of ongoing creativity and change – change which should not be obscured merely because it has been less strikingly novel than the explosion of “imagined communities,” and less clearly in the direction of a world of “complex sameness.”

Gender – which figures in many of our essays, but is not the subject of a single dedicated essay – is another area in which one can discern very important global trends, but not necessarily global convergence. Almost all societies and governments today at least pay lip service to the idea of gender equality, which represents a very radical change from any period before 1750. And while there are widespread disagreements about what gender equality means, both within and between societies, some elements of the definition have become very widely shared: access to education, to a variety of possible jobs, the opportunity to choose one’s marriage partner, and so on. In the West, the publication of Olympe de Gouge’s *Declaration of the Rights of Woman* (1791) and Mary Wollstonecraft’s *Vindication of the Rights of Woman* (1792) mark a convenient point of origin for these changes, and suggest yet another way in which our period is distinctive. Comparable manifestos elsewhere are hard to find until much later; Li Ruzhen’s fantasy *Flowers in the Mirror* (1827), in which women rule the country while men stay at home and have their feet bound, can also be seen as an early feminist work, but had far less impact.

When it comes to the actual achievement of gender equality, the results are far more varied. Even here, there are some remarkable changes that are broadly dispersed, though not global. That women outnumber men in the undergraduate college enrollments of countries as otherwise different as the United States, Sri Lanka, South Africa, Iran, El Salvador, Ukraine, and China – indeed, in most countries outside Africa and South and Central Asia<sup>44</sup> – represents a remarkable set of shifts. Yet in many other areas, patterns of change have varied very dramatically by region; one could make a strong case that differences between, say, Saudi Arabia and Finland today are greater than between any two large societies in 1750.

Arguments about whether one should emphasize certain kinds of convergence, continued diversity, or even the production of new differences sometimes come down to arbitrary decisions about whether to call a glass half empty or half full. In other cases, they come down to questions about the timescale and kind of phenomena one is interested in; and that question is often very different if one focuses on politics rather than on other kinds of

44 <http://data.worldbank.org/indicator/SE.ENR.TERT.FM.ZS>.



issues. The issues that divided the two sides in the Cold War, for instance, mattered deeply to those involved; millions died as a result of this conflict, and it seemed perfectly possible, as Daniel Sargent notes, that those numbers could have been multiplied many times over (Volume VII Part 2, Chapter 14). And the differences still matter to us a generation later. But because the worst possible outcome – a nuclear fight to the finish – did not happen, we have the luxury of decentering these differences between the blocs, and seeing that from many perspectives what the two superpowers promoted (albeit unevenly) had many similarities: economic development, technological change, urbanization, nuclear families formed by “free choice” marriages, mass education, formal decolonization, and the informal incorporation of most states into large alliances as subordinate members.

Decolonization shares some of this ambiguity, as Prasenjit Duara shows (Chapter 15). On the one hand, the wresting of formal sovereignty from former colonial masters was clearly no small thing; on the other hand, the only form that success in those efforts could take was adoption of a nation-state form and participation in an international state system that was largely the creation of the Western powers. As Carole Fink notes in her chapter on “global 1956,” that year’s events – above all the Suez crisis – hastened decolonization, but also “presaged the final character” of that process (Volume VII Part 2, Chapter 15). Each time that the weakening of old colonial powers created an opening for new states to assert themselves, it also drew in the superpowers, one or both of which would simultaneously sponsor and constrain the emerging states. As Fink elaborates, other events of that year – most tragically, the Hungarian revolt, but others as well – showed how limited the room for maneuver could be within the logic of two extremely hierarchical alliances implacably opposed to each other. The Bandung Conference of “non-aligned” nations the year before had shown that many recently decolonized countries wished to avoid absorption into this conflict, but found that extremely difficult.

Moreover, both competitive pressures within the international system and their own convictions often prompted post-colonial elites, as we have seen, to continue or even intensify top-down projects for “remaking” or “renewing” their peoples that shared a great deal with those of the last, “developmentalist” period of colonial rule. Duara provocatively suggests that the continuities between the late colonial and decolonized/Cold War worlds are particularly striking if we take the Japanese empire – a latecomer launched when industry and nationalism were already facts of global life – as ideal-typical

for that era. We then see that the two eras shared many agenda items: a drive for at least some industrial development in both cores and peripheries, a willingness to grant nominal independence (as in Manchukuo) along with *de facto* integration into a hierarchical alliance system, and claims to be able to reach generally accepted milestones of modernity while protecting an authentic national culture grounded in specific traditions. To be sure, the twentieth century also spawned movements that promised far more radical repudiations of modern developmentalist agendas, but for the most part, such groups either failed to take over state power, could not hold it for long, or wound up jettisoning their original promises.

Jeffrey Wasserstrom and Nicole Rebec's chapter on 1989 – the most contemporary of our chapters on global “moments” – makes this question of timescale explicit (Volume VII Part 2, Chapter 16). They note that for most of us who lived through it, it seems obvious that the political events of 1989 – the fall of the Berlin Wall, Tiananmen Square, the Velvet Revolution, and the slightly earlier and later ends of repressive regimes in South Korea, South Africa, Chile, and many other places – are what make it an important year; but one cannot rule out the possibility that the beginnings of the Internet or the *Exxon Valdez* disaster (as a symbol of environmental problems more generally) may someday seem just as important.

Questions about global convergence and diversity come together in still another way – the last that we will consider here – in our essays on various regions in world history. John Voll's essay on the Middle East (Chapter 18) emphasizes that its history has always been intertwined with those of other regions, so that regional and outside actors have been constantly influencing each other (and are often hard to distinguish). And by seeing the problems that the Ottomans, in particular, faced as of a piece with those of the Habsburgs and Romanovs – and pointing out that all of them held on until roughly the same date – he reframes that decline not as a crisis of “the Middle East” impinged on by “Europe,” but as a transformative process that played out across parts of both “the West” and the “non-West,” which shared the political form of “multi-ethnic empires.” The constitutionalist movements in Iran and Turkey c. 1900 also appear to him as part of a broader global current; so does the imposition of external financial controls and foreign protectorates in Egypt, Morocco, and Tunisia (though here the analogues would be places like China, Siam, and some of the Latin American republics rather than parts of Europe). He also points out that throughout this period, the Middle East has been not just an importer of ideas, but a significant exporter (our clumsy metaphor, not his). From Sufi

brotherhoods that had a powerful impact on Central Asian and Chinese Islam in the late eighteenth century, to Wahabbi revivalism (also a late eighteenth-century product, but far more influential after oil revenues made its Saudi patrons immensely wealthy after the Second World War), to late nineteenth-century Islamic modernism, to the Islamic revivalism (both Shi'a and Sunni) of the last few decades, ideas from the Middle East have continued to influence large portions of the rest of the world. Here, too, part of what Voll does is to show that if we do not begin by assuming that the Middle East is historically deviant, some widely accepted stories start to look different. If we assume that “the modern world” is secular, then the fact that religious ideas are “still” so central to Middle Eastern politics and culture does indeed seem to show that the region is “backward.” If we instead see the last few decades as an era of many religious revivals – with evangelical Protestantism in the United States (and increasingly also in Latin America), resurgent Hinduism in India, and a boom in Buddhist, Christian, “New Confucian,” and other religious commitments in post-Mao China, then the rise of new Islamic currents beginning in the 1970s may place the Middle East (for better or worse) in the mainstream, or even forefront, of a global re-evaluation of secularism. While some other regionally important stories, such as the rise of the oil industry, do fit more closely with an old model in which the Middle East was primarily a recipient of global currents (at least before the 1970s), Voll’s narrative shows us how much it matters to narrate Middle Eastern history as world history, rather than as a regional story that “responds” to intermittent stimuli from elsewhere.

Mark Selden and Lionel Frost, looking at the overlapping regions we call “East Asia” and “the Pacific Rim,” take very different approaches (Chapters 19 and 23). Both focus heavily on economics, but diverge beyond that. Frost, while certainly not denying indigenous dynamism, concludes that “Since the mid-eighteenth century, the history of the Pacific has been shaped by exogenous shocks that provide openings for institutional change that shape subsequent economic and social conditions in path-dependent ways.” The proximate drivers of growth in his story are primarily technological change, market integration, and state investment in education and infrastructure. Perhaps because the region he looks at (including California, Australia, and numerous other places along with China and Japan) is so diverse, both culturally and institutionally, he is less interested in finding any regional particularities or any influence that this region exerted on the larger world. (It is, after all, large enough on its own.) His focus, instead, is

on showing how a set of global processes have operated in this region, and why – despite what he sees as the largely external origins of those forces – their positive effects have been larger here than in most other places. Selden, however, sees East Asia as the birthplace of one of two distinctive forms of capitalism, though he argues that the two have fused to a significant degree in recent decades. Much of his effort is therefore devoted to showing that regional characteristics have been far more important than Frost seems to think; together they combine to raise important questions about whether convergence or diffusion is a better way to think about the growth of a world economy. Beyond that lie implicit questions about what makes a given space a viable “region” for historical study, and whether these units are merely conveniences or represent (at least at certain moments and for certain purposes) organic wholes.

Julie A. Charlip on Latin America (Chapter 20) seems to stake out a space in between Selden’s and Frost’s. She is closer to Frost in emphasizing external forces as shaping the region and only briefly discussing its influence on the wider world, but closer to Selden in seeing a recurrent set of challenges and traditions which tend to give a distinctive coloration to how actors within the region respond to global currents. Ian Tyrrell’s chapter on the United States, treating a “region” that became a unified and exceptionally powerful national state, requires still other strategies, acknowledging the centrality of a national story but reminding us constantly how much less self-contained and unique that story is in reality than it is in many tellings (Chapter 22). What all our authors eschew is the rigidly separate and/or essentialist narratives which have sometimes characterized area surveys; by doing so, they allow us to construct a world history that is more than simply the sum of regional parts.

### Conclusions of a sort

It would be extremely presumptuous to try to summarize this volume in a few final paragraphs, and we will not try. It may be less outlandish to make some observations about what these essays suggest about the *study* of world history.

First, they suggest how much can be gained by an intellectual exercise that does not produce new knowledge, as that is usually understood. Most of these essays use few primary sources, and a number use none at all, but by juxtaposing known information in new ways, they create new understandings.

Second, they suggest that there are many ways to write world history: through objects, concepts, events, moments, places, and many more. And they suggest that there is a cumulative “there” there: that we can see intersections, recurring patterns, and temporalities in histories as disparate as those of industrialization, sport, rubber, energy, family, and genocide. Third, they suggest that one of these recurring patterns is temporality itself: that while certainly not every topic considered here shows a pattern of certain basic trends unfolding at an ever-accelerating rate, we see this often enough to nominate it as a fundamental characteristic of at least the period since 1750. Without doubting the usefulness of many other possible periodizations, 1750 to the present seems a useful scale for considering a number of global stories: long enough to see a big picture, and to avoid taking for granted the truly extraordinary nature of the last 100 or so years, but short enough that one does not encounter too many reversals of major trends that prevent the telling of coherent stories. At the same time, we are reminded that the timescale we choose is crucial to what our stories seem to mean: whether the productive or destructive aspects of stories such as industrialization ultimately seem more important depends very much on whether we look from 1850, from 2000, or from any of a variety of possible future dates.

Finally, we see that the growth of long-distance connection in our period, though hardly uniform across either time or space, does in fact give us a theme capable of illuminating many stories at multiple scales. Whether we emphasize physical movements of goods, germs, and people; intellectual and cultural influences; the increasing tendency to compare oneself and one’s community to others far away (or at least to images of those others); or the ways in which both actual and perceived competitive pressures (often from very far away) shaped what people acting locally took into account in doing so, the global, the local, and many layers in between became far less distinct than in any previous epoch. For the historian, this sometimes means that we must consider long-distance influences and impacts of which those whom we study had no knowledge; at other times it means we must deconstruct actors’ (and our own) claims to be thinking globally or following universal imperatives in order to tease out the more local dynamics behind what people said and did (and say and do). But either way, it means that at least the modern historian will almost always need to navigate some world history, even when s/he aims to tell a story on some other scale. We offer these essays as a provisional directory of the paths and guides available for travelers in this rich and surprising territory.

## Further reading

- Allen, Robert C. *The British Industrial Revolution in Global Perspective*. Cambridge University Press, 2009.
- Armitage, David, and Sanjay Subrahmanyam, eds. *The Age of Revolutions in Global Context, c. 1760–1840*. New York: Palgrave, 2010.
- Bayly, C. A. *The Birth of the Modern World, 1780–1914*. Oxford: Blackwell, 2004.
- Imperial Meridian: *The British Empire and the World, 1780–1830*. London: Longman, 1989.
- Belich, James. *Replenishing the Earth: The Settler Revolution and the Rise of the Anglo-World*. Oxford University Press, 2009.
- Burke, Edmund III, and Kenneth Pomeranz, eds. *The Environment and World History*. Berkeley, CA: University of California Press, 2009.
- Cain, P. J., and A. G. Hopkins. *British Imperialism 1688–2000*. New York: Longman, 2002.
- Carmagnani, Marcello. *The Other West: Latin America from Invasion to Globalization*, trans. Rosanna M. Giammanco Frongia. Berkeley, CA: University of California Press, 2011.
- Chakrabarty, Dipesh. *Provincializing Europe: Postcolonial Thought and Historical Difference*. Princeton University Press, 2000.
- Cooper, Frederick, Thomas Holt, and Rebecca Scott. *Beyond Slavery: Explorations of Race, Labor, and Citizenship in Postemancipation Societies*. Chapel Hill, NC: University of North Carolina Press, 2000.
- Cooper, Frederick, and Ann Laura Stoler, eds. *Tensions of Empire: Colonial Cultures in a Bourgeois World*. Berkeley, CA: University of California Press, 1997.
- Darwin, John. *After Tamerlane: The Global History of Empire Since 1405*. London: Allen Lane, 2007.
- Davis, David Brion. *The Problem of Slavery in the Age of Emancipation*. New York: Alfred A. Knopf, 2014.
- The Problem of Slavery in the Age of Revolution, 1770–1823*. Ithaca, NY: Cornell University Press, 1975.
- Davis, Mike. *Late Victorian Holocausts: El Niño Famines and the Making of the Third World*. New York: Verso, 2001.
- Duara, Prasenjit, ed. *Decolonization: Perspectives from Now and Then*. London: Routledge, 2003.
- Gabaccia, Donna, and Dirk Hoerder, eds. *Connecting Seas and Connected Ocean Rims: Indian, Atlantic, and Pacific Oceans and China Seas Migrations from the 1830s to the 1930s*. Boston, MA: Brill, 2011.
- Gaddis, John Lewis. *We Now Know: Rethinking Cold War History*. Oxford University Press, 1997.
- Geyer, Michael, and Sheila Fitzpatrick, eds. *Beyond Totalitarianism: Stalinism and Nazism Compared*. Cambridge University Press, 2009.
- Headrick, Daniel R. *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*. Oxford University Press, 1981.
- When Information Came of Age: Technologies of Knowledge in the Age of Reason and Revolution, 1700–1850*. Oxford University Press, 2000.
- Hobsbawm, Eric. *The Age of Extremes: A History of the World, 1914–1991*. New York: Pantheon Books, 1994.

- The Age of Revolution, 1789–1848*. New York: New American Library, 1962.
- Industry and Empire: From 1750 to the Present Day*. Baltimore: Penguin, 1975.
- Jones, Eric L. *Cultures Merging: A Historical and Economic Critique of Culture*. Princeton University Press, 2006.
- Judt, Tony. *Postwar: A History of Europe since 1945*. New York: Penguin Press, 2005.
- Kershaw, Ian, and Moshe Lewin, eds. *Stalinism and Nazism: Dictatorships in Comparison*. Cambridge University Press, 1997.
- Kiernan, Ben. *Blood and Soil: A World History of Genocide and Extermination from Sparta to Darfur*. New Haven, CT: Yale University Press, 2007.
- LaFeber, Walter. *America, Russia, and the Cold War, 1945–2002*, 9th edn. Boston, MA: McGraw-Hill, 2004.
- Maier, Charles S. *Among Empires: American Ascendancy and its Predecessors*. Cambridge, MA: Harvard University Press, 2006.
- Mann, Michael. *The Sources of Social Power*, Vol. 2: *The Rise of Classes and Nation-states, 1760–1914*. Cambridge University Press, 2012.
- McNeill, J. R. *Something New Under the Sun: An Environmental History of the Twentieth Century*. New York: Norton, 2000.
- McNeill, William H. *The Pursuit of Power: Technology, Armed Force, and Society Since A.D. 1000*. University of Chicago Press, 1982.
- Metcalf, Thomas R. *Imperial Connections: India in the Indian Ocean Arena 1860–1920*. Berkeley, CA: University of California Press, 2007.
- Northrup, David. *How English Became the Global Language*. New York: Palgrave Macmillan, 2013.
- Osterhammel, Jürgen. *The Transformation of the World: A Global History of the Nineteenth Century*, trans. Patrick Camiller. Princeton University Press, 2014.
- Pomeranz, Kenneth. *The Great Divergence: China, Europe, and the Making of the Modern World Economy*. Princeton University Press, 2000.
- Radkau, Joachim. *Nature and Power: A Global History of the Environment*, trans. Thomas Dunlap. Cambridge University Press, 2008.
- Reid, Anthony, ed. *The Last Stand of Asian Autonomies: Responses to Modernity in the Diverse States of Southeast Asia and Korea, 1750–1900*. New York: St. Martin's Press, 1997.
- Rosenberg, Emily S. *Transnational Currents in a Shrinking World, 1870–1945*. Cambridge, MA: Belknap Press of Harvard University Press, 2014.
- Rosenberg, Emily S., ed. *A World Connecting, 1870–1945*. Cambridge, MA: Belknap Press of Harvard University Press, 2012.
- Tilly, Charles. *Coercion, Capital, and European States, AD 990–1992*. Malden, MA, and Oxford: Wiley-Blackwell, 1990.
- Westad, Odd Arne. *The Global Cold War: Third World Interventions and the Making of Our Times*. Cambridge University Press, 2005.
- Wong, R. Bin. *China Transformed: Historical Change and the Limits of European Experience*. Ithaca, NY: Cornell University Press, 1997.





PART I

★

MATERIAL MATRICES



# Energy, population, and environmental change since 1750: entering the Anthropocene

J. R. MCNEILL

## Introduction: slouching towards the Anthropocene

And what rough beast, its hour come round at last,  
Slouches towards Bethlehem to be born?

– W. B. Yeats, “The Second Coming”

Lately a host of scholars, scientists, journalists, and others have begun to bandy about the term “the Anthropocene,” a term popularized by the atmospheric chemist Paul Crutzen since 2000.<sup>1</sup> By that they mean, roughly, the age in which humankind has exerted a significant/large/dominant impact on the Earth’s environment. Naturally, they don’t agree just how much human impact is needed to qualify, nor which kinds of human impacts should count more than others, nor if it’s a bad or a good thing, nor when (if it exists at all) the Anthropocene began. Expert opinion on the last question ranges from the view that it began roughly 15,000 years ago on account of late Pleistocene extinctions, to the insistence that it hasn’t yet begun because natural cycles and processes remain more powerful than human ones.<sup>2</sup> Nonetheless, the concept is a helpful one for world history, underscoring as it does the scale, scope, pace, and centrality of environmental change in human affairs.

1 Paul Crutzen and Eugene Stoermer, “The ‘Anthropocene,’” *IGBP Newsletter* 41 (2000), 17–18. According to Google Ngram Viewer, the word appeared first in 1958–1962, went extinct, but was resuscitated in the 1980s. Its widespread use dates from 2000.

2 Bruce Smith and Melinda Zeder, “The onset of the Anthropocene,” *Anthropocene* 4 (June 2013), <http://dx.doi.org/10.1016/j.ancene.2013.05.001>. One sensible suggestion is to refer to the long age of human impact as the Palaeoanthropocene, reserving the Anthropocene proper for the period since the surge in fossil fuel use and population growth. See Stephen F. Foley et al., “The Palaeoanthropocene – the beginnings of anthropogenic environmental change,” *Anthropocene* 3 (2013), 83–88.

Geologists, who claim sovereignty over the periodization of Earth history, are struggling vainly to create a common definition of the term to match definitions they accept for other eras, epochs, and periods such as the Miocene or the Holocene. One of their usual requirements is what they call synchronicity: the Anthropocene, to be legitimate in their eyes, must begin at the same time everywhere. Further, most geologists require a “golden spike,” a datable marker in the strata of the Earth itself that shows the beginning of any epoch or era. One candidate for this honor is the layer of radioactive fallout that accumulated between the first atomic test at Alamogordo in July 1945 and the ban on atmospheric nuclear testing in 1963. Another is the layer of concrete rubble under formation since 1945: concrete is a new rock, not present in nature, and there is now three tons of it for every square meter of the Earth’s land surface. (The tallest hill in Berlin, the Teufelsberg, is a mound of war rubble created in 1945, the modern equivalent of the archeologists’ tells of ancient Syria, which should last at least a few hundred thousand years.) Historians, being a more fuzzy-minded tribe, do not need golden spikes. Nor do they need synchronicity: the Neolithic began at different times in different places, and so did the Renaissance and the industrial era.

For the purposes of this chapter, in which the customs of historians are observed over those of geologists, the Anthropocene began at different times in different places. Some places, for example Venice or Mexico City, were well into their local Anthropocenes by 1750. People had transformed swamps into cities in both places. Other places, such as the peaks of Patagonia or the depths of the Marianas Trench, which are (I imagine) very much as they were in recent centuries, may not have entered it yet.<sup>3</sup> So in some respects, the Earth had already entered the Anthropocene by 1750, indeed well before. But in others, it has not entered it yet. That would not suit most geologists, but it should be acceptable to historians. Throughout the period treated in this chapter, 1750 to the present, people and their planet as a whole have been entering the Anthropocene – at first slouching towards it at a stately pace, later zooming faster and faster. Increasingly, human impact on the Earth occurred on global as well as local scales.

Within this epoch, it is sensible to see two different periods. The first extended from *c.* 1750 until *c.* 1950 and was the age of coal and of (nearly) 1 percent per annum population growth. The second, from *c.* 1950 until the present, is the age of oil and of (nearly) 2 percent per annum demographic

<sup>3</sup> The glaciers of Patagonian mountains are melting a bit faster than they used to, so depending on what variables one chooses to emphasize; perhaps the Anthropocene has begun there too.

growth. The first period was turbulent enough; the second tumultuous. The tumult after 1950, however, invited a reaction, a Hegelian antithesis, provoking modern popular environmentalism, a young cultural and political force built on the premises that pell-mell environmental change is unwelcome and stability preferable, and that access to unpolluted air and water, and a non-toxic environment generally, is a human right.

## Energy and industry

Several big shifts took place to nudge us into the Anthropocene, but the biggest of all was the adoption of fossil fuels and the leaps in energy use since 1750. The acquisition of fire and language made our ancestors fully human. The adoption of agriculture laid the basis for cities, civilizations, and states. The adoption of fossil fuels made us modern. Each of these marked a great shift in the human condition, in the sense that each encouraged greater complexity in human society and in the human relationship with the Earth.

Our hunting and foraging ancestors lived in a solar energy regime. Plants turned a tiny proportion of incoming solar energy (less than 1 percent) into chemical energy via photosynthesis. People ate a tiny proportion of those plants, and ate an even tinier share of animals that also ate plants. Their bodies converted to heat and mechanical or kinetic (muscular) energy some of the chemical energy in their food. This process captured an infinitesimal proportion of incoming solar energy, permitting our ancestors an energy harvest of less than 2 percent, per capita, of what twenty-first-century people (on average) enjoy.

Domestication of plants and animals, which began a bit more than 10,000 years ago, increased that harvest. Agrarian societies making full use of domesticated plants and animals, harvested about four to six times as much energy as did hunting and foraging societies. Eventually, water and wind power augmented the human energy supply. But all the wind and water power in use as of 1750 added only very slightly to the total energy harvest, because they were practical technologies for only a few tasks, and because sufficiently reliable wind and water existed only in select locations. This solar energy regime narrowly constrained human life, ensuring that most of our ancestors had to work long and hard for meager and uncertain returns.<sup>4</sup>

<sup>4</sup> For heat people could turn to stocks as well as flows of energy. Trees represented decades or centuries of accumulated photosynthesis. Wood and charcoal, helpful in heating, cooking, and a few industries, were crucial for most human societies. But they

After 1750, fossil fuels began to corrode these constraints. Peat, coal, oil, and gas represent gigantic stocks of fossilized solar energy, accumulated over about 500 million years. Peat is semi-fossilized plant remains, most of which took 6,000–20,000 years in the making. When dried, it makes a satisfactory fuel for some uses (not metallurgy for which its flame is not hot enough). The Dutch are the only people to make it central to their economy, because only in Holland were large quantities of peat, a bulky fuel, available at sea level for easy shipment. During the Dutch Golden Age (c. 1560–1670), peat accounted for about half the energy used in the Netherlands. In an age where many locations in Europe, China, and elsewhere, struggled to maintain supplies of fuelwood, peat provided the Dutch an energy-cost advantage which helped them forge internationally competitive brewing, sugar-refining, salt-making, and other energy-intensive industries.

Peat transformed the Dutch place in the world, but coal transformed the world. Coal amounts to frozen sunshine collected over hundreds of millions of years. It carries half again as much energy per ton as does the best fuelwood, and three times as much as peat. The first society to make significant use of coal was the Chinese during the Song Dynasty. Abundant coal in the northwest provinces helped fire an iron industry, which as of the late eleventh century, exceeded the iron industry of all Europe as late as 1700. For reasons that remain uncertain, the Chinese coal and iron industries tailed off after the twelfth century.

Coal had its own limitations. Most of it lay deep beneath the ground, requiring dangerous and costly work to get it out. In many lands, water collected in mineshafts, making miners' tasks nearly impossible. Moreover, most coal, though it burned hot enough for metallurgy, carried various impurities that made iron brittle. Coal was also costly to transport. All these limitations were overcome in Great Britain between 1700 and 1840, by virtue of technical advances, canal-digging, and the refinement of the steam engine, which could pump water out of mine pits and thereby prevented the Industrial Revolution from drowning in its infancy.

Great Britain lay toward the northwestern end of a carboniferous crescent, the landscape stretching from Silesia to the Scottish lowlands – even more crucial to the industrial age than was the fertile crescent to the agrarian age. In 1750 this region produced less than 5 million tons of coal annually (almost all of it in Britain). By 1900 it yielded more than 400 million tons a year, about

added only to the quantity of heat energy, not mechanical energy. For that, there was no substitute for muscle.

60 percent of it mined in Britain. Coal was now king, supplying the majority of Europe's energy requirements and half of the world's. Where it was used in bulk, coal shattered the grinding constraints of the solar energy regime – something peat could never do – opening new opportunities hitherto both unimaginable and genuinely unattainable.

Coal was king for the span of two human generations. By 1900, primitive internal combustion engines existed that eventually would create a vast market for petroleum (Fig. 2.1). Oil, in effect concentrated liquid sunshine, carries twice the energy per ton as does coal. Pipelines and tankers can transport it more cheaply than anything can carry coal. By 1960 oil accounted for more energy use around the world than did coal. Oil can do just about anything coal can do, and a few other things – such as power aircraft – besides. After a co-regency with coal in the middle of the twentieth century, oil has remained king to this day – another two human generations so far.

Between 1750 and 2015, total worldwide energy use grew by 90–100-fold, the most revolutionary process in human history since domestication. By about 1870 humans used more fossil fuel energy each year than the annual global production from all photosynthesis. Fossil fuels accounted for almost all that growth, and today supply about 75–80 percent of all energy in use.

Within the Anthropocene, the last several decades amount to an energy orgy. Our species probably used more energy since 1920 than in all of prior human history. Between 1945 and 2015, we burned around 50 million to 150 million years' worth of fossil sunshine. Plenty more remains, mostly coal.

Global averages and totals of course conceal sharp differences. In 1960, most of the world outside of Europe and North America still used little fossil energy. The energy-intensive way of life extended to perhaps one-fifth of the world's population. But late in the twentieth century that pattern, in place since 1880 or so, changed quickly. In the forty-five years after 1965, China increased its energy use by twelve times, India by nine, Egypt by nine or ten. Meanwhile US energy use rose by about 40 percent. The United States accounted for a third of the world's energy consumption in 1965, but only a fifth in 2009; China accounted for only 5 percent in 1965, but a fifth in 2009, and in 2010 surpassed the United States to become the world's largest energy user.

In sum, the burgeoning rate of energy use in modern history makes our time wildly different from anything in the human past. The fact that for about a century after 1850 high energy use was confined to Europe and North America, and eventually – if to a lesser extent – to Japan, is the single most important reason behind the political and economic dominance these regions



Fig. 2.1 A derrick in the early days of Persian oil field development in 1909  
(© Hulton-Deutsch Collection/Corbis)

enjoyed in the international system. Since 1965 the total use of energy has continued to climb at only slightly diminished rates, but the great majority of the expansion has taken place outside of Europe and America, mainly in East Asia (Tables 2.1 and 2.2).



Table 2.1 Global coal production

Year	Metric tons of coal (million)
1800	15
1900	825
1950	1,800
2000	4,700
2012	7,900

Sources: Rounded from the HYDE database; BP Statistical Review of World Energy (2013)

Table 2.2 Global oil production

Year	Metric tons of oil (million)
1850	0
1900	20
1950	520
2000	3,620
2012	4,120

Sources: Rounded from the HYDE database; BP Statistical Review of World Energy (2013)

Abundant and cheap energy stretched the ecological reach of humankind. Beyond the obvious environmental implications of mining, transporting, and burning fossil fuels – alone a major disruption – cheap energy encouraged industrialization as never before.<sup>5</sup> Industrial economies required raw materials in quantities far exceeding those needed for artisanal production, much of which came from plantations scattered around the globe.

Plantations had existed for millennia, and during the sixteenth to eighteenth centuries had become the standard means by which to produce sundry commercial crops. After 1840, steam-powered machinery could transform cotton into clothing very cheaply, inspiring a cotton frontier at the expense of forest in the American South, and new efforts to raise cotton in India, Egypt, the Anglo-Egyptian Sudan, French Polynesia, and scattered locations in Central Asia, Southeast Asia, and Latin America.

But cotton was only part of a new plantation complex that industrialization created. Tea, coffee, tobacco, jute, palm oil, copra, and various other stimulants,

5 For British energy prices, see Roger Fouquet and P. J. G. Pearson, "Five centuries of energy prices," *World Economics* 4:3 (2003), 93–119.

lubricants, foods, and fibers made the industrial revolution hum as smoothly as it did. Most new plantations were carved out of former forest lands, often as a form of shifting cultivation, because the crops and production methods wore out soils quickly. Tobacco, cotton, and coffee, in particular, depleted soil nutrients rapidly, and absent expensive conservation measures required new soils, enriched by the ash of freshly burned forests, in order to be economic. Keeping the growing populations of the new industrial cities fed, clothed, and caffeinated led armies of slaves in Alabama, Cuba, and Brazil, and legions of laborers elsewhere, to burn off millions of hectares of old-growth forest (Fig. 2.2).

Food and fiber frontiers formed only a part of the impact on the land in the age of fossil fuels. Cheap transport – railways and steamships – made mining ores in remote locations more practical. Industrial cities could buy (except during economic depressions) all the copper, tin, iron, bauxite and other ores that Chile, Malaysia, Australia, Siberia, and Jamaica could yield. Industrial methods, such as steam-powered hydraulic hoses, made mining worthwhile in alluvia that otherwise would have been left untouched in the nineteenth century. These methods debuted in the gold strikes around the Pacific basin that began in the Californian Sierra in 1849 and shifted to Australia, New Zealand, and the Klondike. Hardrock mining, whether for South African gold and diamonds or Chilean copper, also required fossil-fuel powered machinery and transport. It inevitably pockmarked landscapes and occasionally, through surface collapses, altered topography. Late in the twentieth century, huge oil-powered machines chewed their way through mountains and valleys, extracting coal in West Virginia or gold in Western Australia. These environmental changes could not have happened without cheap energy: no amount of slaves with pickaxes could have done the work economically.

Furthermore, cheap energy created transportation networks that made intercontinental migrations on the part of tens of millions feasible. Between 1840 and 1913, some 60 million Europeans crossed oceans in search of better lives, and many of them ended up staffing the farms and mines of the Americas and Antipodes (and a few million more in Siberia). Another 20 or 40 million Indians and Chinese migrated to the world's economic peripheries, to the mines and plantations of Guyana, Trinidad, Mauritius, Malaya, Thailand, Burma, Natal, Queensland, and Fiji. Without these millions of strong backs and skilled hands, far less forest could have been cleared, far less slurry dumped, far less soil eroded, and far less prairie plowed.

Fossil fuels and industrialization worked their transformative magic not only in the world's far-flung plantation zones and mining camps, but also in and around industrial cities themselves. Early in the age of fossil fuels, the



Fig. 2.2 Coffee plantation in Brazil  
(© Bettmann/Corbis)

most conspicuous changes arose where industrial cities sprang up from former villages or small towns, as at Manchester, Berlin, or Chicago, and eventually at Shanghai, Osaka, Magnitogorsk, and many others. These were the “shock cities” of the industrial revolution, the places where water power or coal came together with uprooted peasantries and raw cotton or iron ore in a profitable mix.<sup>6</sup> In parts of the carboniferous crescent, such as the Ruhr or Silesia, farmland sprouted iron mills, coal mines, metallurgical plants, and railroad yards almost overnight (Fig. 2.3).

These cityscapes and industrial belts became the most polluted and unhealthy habitats of the nineteenth century. Their rivers and canals hosted all manner of industrial chemicals and biological wastes. A British royal commission in 1866 found that the water of the Calder River made a “tolerably good ink.” Rivers and lakes acquired a frothy foam and often became toxic to almost all aquatic life. Some rivers and canals frequently caught fire. Meanwhile chimneys spewed out ash, dust, smoke, soot, and sulfur dioxide, blanketing homes, gardens, streets, pastures, and fields – and

6 Harold Platt, *Shock Cities: The Environmental Transformation and Reform of Manchester and Chicago* (University of Chicago Press, 2005).



Fig. 2.3 Soviet Russian propaganda poster from 1920s illustrating the growth of industry (World History Archive/Alamy)

filling lungs – with toxins. Tens of millions of lives were shortened by urban air pollution after 1800, maybe more than a hundred million. Veteran newspaper editors in Britain knew to leave extra space for obituaries when winds died down or fog settled on their city. Environmental battles took shape within and around the cities, as victims of these “nuisances” tried to stop, or win compensation for, the harm done them. For many decades they lost more than they won.

After 1950, urban air and water pollution got worse and then got better. With the arrival of the motor car as a routine middle-class possession (in the 1920s in the United States, 1950s in Western Europe), tailpipes joined with smokestacks and chimneys in fouling urban air. Photochemical smog made its debut as an ingredient in the toxic atmospheric stew. Where strong sunshine and millions of cars combined, as in Los Angeles in 1943, smog occasionally fooled residents into thinking they were under attack with chemical weapons. Meanwhile the rise of petrochemical industries added a new tang to the brew, and the rise of organic chemicals – often persistent in the environment for years or decades – further raised the risks to health and life in those landscapes within reach of industrial processes. Popular environmentalism, government regulation, and fuel substitution – more gas and less coal – combined after 1965 to clean up the air in most cities of Western Europe, Japan, and North America.

Soon, however, industrializing cities in China, India, Brazil, and elsewhere peppered their air with a slew of pollutants, mainly from the combustion of fossil fuels. Chinese high-sulfur coal powered the fastest industrial revolution in world history, but killed tens of millions of Chinese (and some Koreans and Japanese too) via lung ailments derived from, or exacerbated by, air pollution. After 2000, burgeoning fleets of private automobiles crawled across the pavements of Beijing, New Delhi, São Paulo, and dozens of other cities, adding vast flows of unhealthy pollutants to urban air and residents’ lungs. In the early twenty-first century, a dozen or more Chinese and Indian cities ranked near the worst in the world in air quality, and were probably more dangerous places to breathe than Pittsburgh, Glasgow, or Essen a century before. It remains to be seen how long this deadly situation will last.

Fossil-fuel based industrialization had parallel unwholesome impacts on urban water. Metallurgical, chemical, and other factories typically used urban waterways for their waste streams, dumping all manner of toxins economically (for the factories) but lethally (for aquatic creatures). Bacterial pollution, however, was more dangerous for humans than all but the nastiest





Fig. 2.4 Aerial view of cattle pens in Chicago stockyards, 1950s  
(ClassicStock/Alamy)

chemicals. Industrial transport made it possible to bring enough food and fuel into cities after 1820 so that some could grow into megalopoli. London grew from 1 million to 7 million in the nineteenth century. Chicago grew from nothing into a city of half a million in 1880, 1 million by 1890, and 2 million by 1910. Meanwhile, between 1890 and 1920 its coal consumption sextupled. It built the world's largest stockyards and slaughterhouse complex, and butchered 13 million animals a year (Fig. 2.4). Packing humans and animals in together on such a scale created flows of faeces and offal of prodigious magnitude, fouling cities' streets and especially their waters. Cholera, typhoid, and other waterborne diseases ricocheted around these cities, killing millions. Happily, in the early twentieth century, filtration and other forms of pollution control drastically reduced the lethality of urban water. Such measures proved comparatively cheap and easy to install, and in rich countries were nearly universal by 1940. They spread to hundreds of colonial cities, although sometimes only to the "European quarters," in the mid-twentieth century. In the post-colonial world, they are still spreading, but

many of the fast-growing cities in the poorest countries, Dhaka or Port-au-Prince, for example, cannot provide clean water for their residents. It also remains to be seen how long this deadly situation will last.

## Population and urbanization

The Anthropocene witnessed unprecedented global population growth. Indeed, that is one of its defining characteristics: to some appreciable (but not measurable) extent, population growth led to the Anthropocene. One way to recognize the extraordinary character of the Anthropocene is to consider rates of population growth.

For most of human history, population growth rates were infinitesimal (Table 2.3; Map 2.1). In the nineteenth century, growth attained a rate of about 0.5 percent per annum and in the first half of the twentieth, about 0.9 percent. A great spike followed the Second World War: growth reached its apex about 1970, briefly topping 2 percent per year. By 1975, the rate of growth started to slacken, then fell fast after 1990, so that by 2010 it came to 1.1 percent per year. What the future holds is anyone's guess, but UN demographers project the growth rate by 2050 will dip to 0.34 percent, slower than in 1800. In any case, the era from 1950 to 1990, when global growth exceeded 1.75 percent per year, amounted to a global burst of reproduction and survival, never before approached and never to be repeated in the history of our species. These modern growth rates are 50 to 200 times as fast as those that prevailed for most of our species's history. Between 1945 and 2015, some two-thirds of the population growth in the history of our species took place – within one

Table 2.3 Annual rates of global population growth since AD 1000

Period	Percentage population growth
1000–1500	0.1%
1500–1820	0.3%
1820–1870	0.4%
1870–1913	0.8%
1913–1950	0.9%
1950–1973	1.9%
1973–2001	1.6%
2001–2014	1.2%

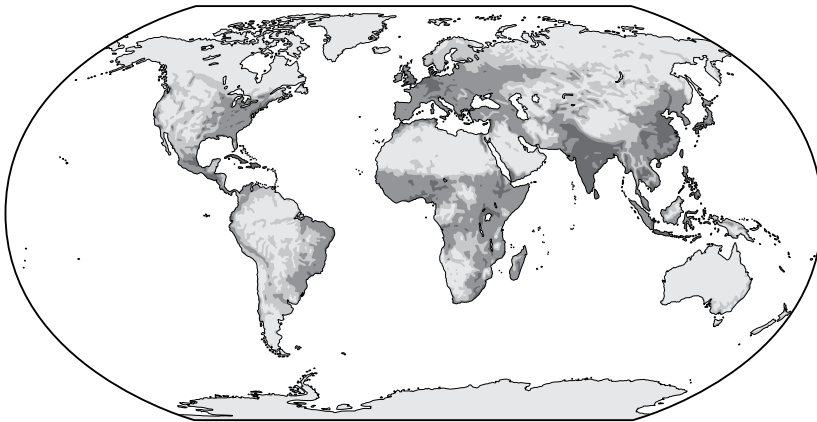
Sources: Rounded from Angus Maddison, *The World Economy: Historical Statistics* (Paris: OECD, 2003), p. 257; UN Population Division data



Inhabitants per km<sup>2</sup>



Map 2.1 Population density in 1800



Inhabitants per km<sup>2</sup>



Map 2.2 Population density in 2000



Table 2.4 Global population since AD 1000 (millions)

Year	Population (in millions)
1000	268
1500	438
1600	556
1700	603
1800	989
1900	1,654
1950	2,545
2000	6,145
2014	7,100

Source: Angus Maddison, *The World Economy: Historical Statistics* (Paris: OECD, 2003), p. 256; RIVM HYDE database; US Census Bureau

human lifetime (Map 2.2). If our descendants keep such rates up for another few centuries, the Earth will be encased inside a giant ball of human flesh expanding outwards at a radial velocity approaching the speed of light – an unlikely prospect.

A second way to consider the extraordinary population history of the Anthropocene is to focus on sheer size. It took our species many tens of thousands of years, including a brush or two with extinction, to become 1 billion strong. That came between 1800 and 1820. By 1930, human population had doubled to 2 billion. It took only another thirty years, until 1960, to add the third billion. Then the crescendo came. The fourth billion arrived in 1975, joined by another by 1987 and then another by 1999. By 2011 or 2012 the world counted 7 billion people, and had been adding a billion every twelve to fifteen years for two human generations (Table 2.4).

Human numbers more than doubled between 1950 and 2000. In no prior period of fifty years, in no other prior century, did human numbers ever double. No other primate, probably no other mammal, has ever done anything like this in the history of life on Earth.

One last way to look at this extraordinary burst of population growth is to consider the absolute increase in the number of people per year, the annual increment or the net of births minus deaths. From 1920 to 1945, the globe had added on average a little over 20 million people every year. By 1950, the annual increment approached 50 million, after which it surged to about 75 million by the early 1970s, stabilized briefly, then in the late 1980s reached what is likely to be its maximum at about 89 million per year – equivalent to

Table 2.5 Global population increment per year, 1950–2010

Period	Population change per year (in millions)
1950–1955	47
1955–1960	52
1960–1965	62
1965–1970	71
1970–1975	75
1975–1980	75
1980–1985	82
1985–1990	89
1990–1995	85
1995–2000	80
2000–2005	79
2005–2010	79

Source: Rounded from UN Population Division data

adding a new Germany or Vietnam (at their 2010 populations) every twelve months (Table 2.5).

Our recent biological success is remarkable in biospheric context. As of 2015, we outnumbered any other large mammal on Earth by a large margin. Indeed our total biomass (about 100 million tons) outweighed any mammalian rival except cattle, of which there were about 1.3 billion, weighing in at 156 million tons. Humans (whose average body size increased by half between 1800 and 2000), now account for perhaps 5 percent of terrestrial animal biomass, half as much as all domestic animals combined. Lest we grow smug at our biological success, we should remember that ants, however, easily outweigh us.<sup>7</sup>

Why did this bizarre episode in our demographic history happen? On the most basic level, it happened because the global death rate fell rapidly, from about thirty to thirty-five per thousand per year in 1800 to about 20/1000 in 1945, before plummeting to 10/1000 by the early 1980s. It now stands at 8.4/1000. The birth rate fell too, but more gradually, and in some places actually rose for a few decades before beginning its secular decline. Globally the crude birth rate slid from 37/1000 in 1950 to 20/1000 in 2010, a notable fall, but less so than the precipitous decline in the death rate.

On a less elementary level, what happened was that techniques of death control temporarily outstripped techniques of birth control. In the

7 Estimated from FAO (Food and Agriculture Organization of the United Nations) 2014. Statistical database, <http://faostat.fao.org/site/573/default.aspx#ancor>.

course of the eighteenth century in some parts of the world, notably China and Western Europe, improved government response to food shortage, combined with gradual build-up of disease resistance slowed death rates. In the nineteenth century, these processes continued and were joined by revolutionary changes in urban sanitation, mainly the provision of clean drinking water beginning around 1880, and in the early twentieth century by vaccinations and antibiotics as well. States (eventually including colonial administrations) created public health agencies that sought to impose vaccination and sanitation regimes wherever they could. Medical research also identified several disease vectors, lice, ticks, and mosquitoes for instance, and in some cases proceeded to find ways to keep vectors and people apart. Successful mosquito control sharply curtailed the ravages of yellow fever and malaria, for example. Moreover, food scientists in the 1920s and 1930s figured out the role of specific vitamins and minerals in checking diseases caused by malnutrition. In the 1970s, a sustained international effort eradicated smallpox, humankind's deadliest nemesis for several millennia. Curtailing infectious disease proved the most important intervention in the fruitful quest to limit death and lengthen life. Famine reduction came a distant second.

After 1945 most of these developments came together to lower death tolls very quickly in most parts of the world. Hence a tremendous surge in life expectancy, derived mainly from the survival of billions of children who in earlier times would have died very young. In the second half of the twentieth century, even poor people lived far longer (on average about twenty years longer) than their forebears had a century previously. The gaps between rich and poor in life expectancy narrowed almost to nothing, probably for the first time since plant and animal domestication.

This rollback of death was a signal achievement of the human species and one of the greatest social changes of modern times. But the end of the twentieth century brought two exceptions that proved the rule. First, in Russia, Ukraine, and some of their smaller neighbors, life expectancy (which in the Soviet Union had lengthened rapidly between 1946 and 1965) declined after 1975, at least for males. This departure from the prevailing trend is usually attributed mainly to alcoholism and smoking. Second, after 1990 in the most AIDS-afflicted parts of Africa, a parallel reverse of lengthening life expectancy occurred – by as much as ten to fifteen years on average in Zimbabwe, South Africa, Botswana, and Kenya.

Since 1750, our species has changed its characteristic habitat from village to city. The first cities appeared 6,000–7,000 years ago. Not until eighth-century

Baghdad did any city reach a million, and that did not last. By 1750, Beijing alone topped 1 million and less than 3 percent of humankind lived in cities. There were good reasons for this: supplying a concentrated population with enough food and fuel was a difficult technical and economic problem. Cities in temperate latitudes (northern Europe or China) needed forest areas 50 to 200 times their size to meet their fuelwood needs. London, which burned coal on a substantial scale as early as the sixteenth century, was the lone exception. These requirements put a fairly firm limit on urbanization. So did stubborn constraints upon agricultural productivity.

After 1800, however, the development of fossil fuels reduced the requirements for fuelwood and, with technical improvements in engines and transport, allowed cities to extend their footprint, or catchment, over greater distances. By 1900 about 14 percent of people lived in cities, and by 2000 very close to 50 percent. Thus the proportion of urban-dwellers among our species quadrupled in the nineteenth century and then tripled in the twentieth. In raw numbers, the urban population in 1800 was about 30 million, in 1900 some 225 million, and in 2000 perhaps 3 billion. This comes to a 100-fold expansion in 200 years, roughly the same as the expansion in energy use. Nothing like this ever happened before in human history, nor can it again.

Until a century ago, cities were lethal environments. Their infectious diseases killed people faster than others were born. Around 1750, for example, London's pathogens canceled out half of the population increase of the rest of England. In 1796, a German physician referred to large cities as the "open graves of mankind."<sup>8</sup> But between 1850 and 1930 sanitation improvements revolutionized urban demography, so that after 5,500 years as black holes for humanity, cities by the early twentieth century ceased to prune back population growth. Villages continued to send their legions of young migrants to the world's cities, but now more of them survived and reproduced; hence the emergence of megalopoli and the swift urbanization of our species.

For 200,000 years, our characteristic environment was savanna grasslands and parklands. For 7,000 years until 2000 CE, farming villages formed the standard human habitat, but now cities do. Cities account for only a sliver of the Earth's surface (less than 1 percent), but they are now the environment most people experience for most of their lives.

8 Christoph Wilhelm Hufeland, quoted in Joachim Radkau, *Nature and Power: A Global History of the Environment* (Cambridge University Press, 2008), p. 144.

## Politics: imperialism and international tensions

Energy and industrialization, population growth and urbanization brought on the Anthropocene. But other forces helped shape its character, such as politics. In 1750, most polities were monarchies run by narrow cliques of usually aristocratic men (and occasionally women). From the early nineteenth century, however, more and more governments had to acknowledge the preferences of larger and larger shares of the populations they ruled. This was democratization, slow and spotty in the nineteenth century, in retreat for part of the twentieth, but advancing broadly if inconsistently after 1960 or so, what with decolonization in the Caribbean, Africa, and Asia, quiet revolutions in parts of Southeast Asia, and the fall of the Soviet empire. Broadly speaking, the enfranchisement of some of the masses gave rise to higher rates of consumption, more industrialization, and more environmental disruption. After several decades, however, it often brought a countervailing trend, in the form of agitation for healthier air and water, and occasionally for the preservation of certain ecosystems. (The surge of modern environmentalism around the world is treated below.)

At the same time as many states and societies became more democratic, the international system became more hierarchical. In the eighteenth century a few states, such as Qing China, Russia, and Britain, managed to expand their domains in Central and South Asia through military might and forceful diplomacy. In the nineteenth century, Western European states (and later Japan and the United States too) rapidly built sprawling empires in Africa, Southeast Asia, or the Pacific. It was their industrial power more than anything else that permitted them to do so.

Imperialism, like every major political process, had its environmental impacts. In the first place, imperialism eased the extraction of the raw materials (from the mines and plantations discussed above) that industrial economies needed. Empire builders also encouraged the migration of people, plants, and animals from one corner of the globe to another, such as millions of Britons to Australia, French to Algeria, or South Asians to South Africa, Trinidad, Fiji, and elsewhere – as well as eucalyptus trees from Australia to Portugal and camels from Afghanistan to Australia. Of course people had been reshuffling the planet's biota for millennia. But now, thanks to imperialism and cheaper, faster transport, the pace quickened. Put differently, imperialism favored the ongoing process of ecological globalization.

Empires also provided convenient landscapes for experiments in environmental management. In the quest for economic development, disease

control, or some other worthy goal, imperial bureaucrats and engineers instructed colonized peoples to dig irrigation channels, drain swamps, build dams, terrace fields, fence pastures, cull herds, or otherwise improve their environments. Frequently they translated expertise from one part of the world to another, from home to the colonies, or from one colony to another, just as they did with plants and animals. As with biotic transfers, the transfer of expertise sometimes worked as intended, and sometimes brought a cascade of unexpected and unwelcome consequences, such as extra doses of malaria and bilharzia around irrigation projects.

International politics, as always, included war as well as imperialism. Combat itself often included programs of environmental disruption in the form of scorched-earth tactics, poisoned wells, and so forth, all of it as old as warfare itself. Preparing and mobilizing for war also had its ecological dimensions. Before 1870, that often included measures to try to protect forests of pine and oak woodlands, so as to keep ample supplies of naval timber (after 1870 warships increasingly were made of metal rather than wood). Before 1920, it also often involved maintaining landscapes suitable for horse-raising to keep armies flush with cavalry mounts and dray horses to haul field artillery. War preparation also entailed building roads and railroads which when not in military use could ease agricultural expansions, timber cutting, or extend mining frontiers. The Trans-Siberian railway, begun in 1891 and built primarily for military reasons, did all of the above.

After 1890, the great powers increasingly felt the need to build enduring military-industrial complexes. Small ones had existed before in wartime, but in peacetime were usually dismantled. But after 1890, what with sustained great-power rivalry, two world wars, and then the Cold War, major economies such as Germany, Russia, Britain, and the United States maintained large-scale military-industrial complexes for decades on end. Governments shielded these from environmental regulation (when and where it existed), so military industries became giant polluters and usually stayed that way. As warfare became more mobile in the mid-twentieth century, militaries became voracious consumers of fuel. Advanced fighter jets used more oil in an afternoon than an average American family used in a year.

After 1945, several of the great powers added nuclear weaponry to their arsenals. In the second half of the twentieth century, roughly 10 percent of all electricity consumption went into the manufacture of nuclear weapons. Building them and testing them led to ongoing radiation contamination, occasionally to the point where authorities had to seal off exclusion zones

in the interest of human health. One hour spent beside Lake Karachai, in the heart of the old Soviet nuclear weapon-making region, is enough to kill anyone by radiation poisoning. If the Anthropocene requires a “golden spike,” the layer of radionuclides from atomic weapon-testing will do for now: it should remain detectable by geologists for at least 100,000 more years.

## Climate change

In the fullness of time it may appear that of all the environmental changes that formed the Anthropocene, the most important was in climate. But that is not true yet.

In 1750, the Earth’s climate, always in flux, was in the latter stages of the Little Ice Age (c. 1300–1800), a period of slightly cooler temperatures in most parts of the world and more frequent drought in many. The exit from the Little Ice Age at first was probably an entirely natural phenomenon. By 1850 or so, however, the twin processes of burning fossil fuels and clearing forests had begun to inject enough carbon into the atmosphere to begin a long-term trend of human-caused climate change. Its chief characteristic was warming of the lower atmosphere, by about 1 degree Celsius on average (1850–2015). Most of that took place after 1975. It was more pronounced in the Arctic than anywhere else, but evident almost everywhere (despite the occasional cold winter here and there). Barring some powerful override, such as reduced solar output, the trend is set to continue for the foreseeable future – which is why, in time, it is likely to appear the most important environmental disruption in an age of several such disruptions.

The warming led to glacial melt almost everywhere, and a dramatic shrinking of the north polar ice cap. Melting ice, combined with thermal expansion, raised sea level by about 30 cm (on average, 1850–2015). Higher sea levels made coastal communities more vulnerable to storm surges – such as the one that hammered New Jersey in 2012, and the many that flood low-lying landscapes in the Philippines or Bangladesh almost every year. Less dramatically, rising seas allowed salty water to seep into aquifers, endangering drinking water from Cape Cod to Catalonia to Calabar to Calcutta.

Climate change pushed plants and animals sensitive to temperature into new habitats, and pushed a few species, unable to make such migrations, into extinction. Warmer temperatures probably raised the frequency of extreme weather, both droughts and floods, by accelerating evaporation and loading the atmosphere with additional water vapor. Greater warmth expanded the

range of some disease vectors, such as anopheline mosquitoes, which have crept up the slopes in Ethiopia's highlands, for example, bringing malaria to populations formerly free of it. It permitted population explosions of bark beetles in boreal forests, such as those nibbling their way through British Columbia's valuable timberlands. More cheerfully, climate change lengthened growing seasons in most parts of the world, allowing vineyards to thrive in southern Britain for the first time since the reign of Richard the Lionheart. The history of anthropogenic climate change is still in its early days, and may look rather different in just a few decades.

The recognition of climate change, and anxieties about future prospects, animated a new dimension of international politics – climate politics – which centered on the question of how to reduce carbon (and other greenhouse gas) emissions to the atmosphere. In practice, it became a politics of near total futility, featuring prodigious grandstanding and hypocrisy, centered on how to make other people reduce emissions without doing much oneself.

### Ecological changes

While in the fullness of time, climate change may become the hallmark of the Anthropocene and its most important legacy, in the interim other ecological consequences of the surges in energy use, economic activity, population, urbanization, technological change (and so forth) loomed larger. One such consequence was reorganization of the terrestrial biosphere, mainly motivated by the quest for food. In 1750 about 4 percent of the world's land area was in crops or pasture. By 2015, the figure had climbed to 40 percent. In the same span, world food production climbed about eighteen-fold.

Most of that cropland came via a giant plow-up of the world's grasslands. Between 1750 and 1950, about 18 million km<sup>2</sup> (an area equivalent to today's Russia) of grasslands were converted to other uses, mainly cultivation. Another 9 million km<sup>2</sup> (equivalent to China) followed after 1950. The prairies of North America, the Argentine pampas, the Russian and Ukrainian steppe, big chunks of northern China, southeastern Australia, the West African Sahel, and much grassland elsewhere, was turned to cropland, sometimes permanently, sometimes only briefly. The last big push in this global frontier process came in 1955–1963 with the Soviet Virgin Lands scheme, in which wheat replaced steppe grasses over an area the size of Japan (or Montana). The process from the outset was intimately linked with the trends in fossil fuels and demography:



growing populations required the grain that these former grasslands gave; railroads and steamships allowed the grain to reach markets cheaply enough to allow even poor people to eat it; and, beginning in 1920 or so, oil-powered farm machinery (e.g. tractors) made it much more economical to plow up the densely rooted grasses and to harvest grains.

The Anthropocene was – and is – an age of swamp-busting as well as grassland conversion. In China, the lower Ganges, the Po marshlands, the North and Baltic Sea littorals, and elsewhere, the engineering expertise needed to drain wetlands and turn them to farmland had existed for centuries before 1750. That expertise spread round the world in the nineteenth century, with imperialism, settler colonies, and an international fraternity of hydraulic engineers. The necessary manpower became easier to find, and eventually fossil-fuel powered machinery made it easy work. Broad swathes of North America, including the Middle West breadbasket, were drained after 1850. Eventually between a quarter and a half of the world's wetlands (as of 1750) disappeared. In warm or seasonally warm climates this often reduced the burden of malaria, and almost everywhere it yielded lush farmland, but was hard on people who had depended on fish and waterfowl for their food. The losers were often ethnic or religious minorities, without the wherewithal to challenge states bent on draining wetlands, settling farmers, raising revenues, and, as they often saw it, extending civilization. Various governments in Iraq, for example, from Ottoman times onward, tried to drain marshes amidst the Tigris and Euphrates where people lived outside the state's net of taxation and conscription. Saddam Hussein completed the process, destroying the habitat of the so-called Marsh Arabs in Basra province. After 1970 in a few corners of the world, notably the United States, environmentalism made swamp-busting unpopular and governments withdrew support, even trying to rehydrate drained wetlands such as (parts of) the Florida Everglades. In net global terms, however, wetlands continue to shrink.

With gathering speed, people turned forests, as well as grasslands and wetlands, into farms. Deforestation was another hallmark of the Anthropocene, driven by hunger for farmland and markets for timber. People have cut and burned forests for as long as there have been people, and where they did it regularly or replaced forest with fields or pastures, their impact endured as deforestation. In the eighteenth and nineteenth centuries, the main frontiers of deforestation were the temperate lands of Eurasia and North America. By the mid-twentieth century, however, the fastest forest retreats took place in the moist tropical forests of Latin America, Africa, and Southeast Asia. In North America and Europe, meanwhile, forests slowly returned. In the United States,



Fig. 2.5 A Mexican official walks amid deforestation in Lacandon rainforest, Montes Azules (© Reuters/Corbis)

for example, the nadir of forest cover came in about 1910, since which time trees have recolonized large sweeps of the eastern part of the country. The North American and European forest recovery was matched or exceeded in Japan, but in global terms remains for now an eccentricity. The surge of cutting and burning after 1950 has reduced the global extent of moist tropical forest by about 60 percent. Lately the pace has dwindled, especially in Brazil. That might be a blip or it might be a new trend (Fig. 2.5).<sup>9</sup>

The transformation of grasslands, wetlands, and forests took a toll on wildlife. Since the acquisition of fire, people have been dangerous to other animals. Hunting probably helped drive dozens of large mammals to extinction at the end of the Pleistocene. Subsequently, human settlement, especially on formerly isolated islands, and subsequent habitat conversion combined with hunting drove a few more species to extinction. But the pace of animal and plant extinction accelerated markedly in the nineteenth and

9 The best global deforestation history is Michael Williams, *Deforesting the Earth: From Prehistory to Global Crisis* (University of Chicago Press, 2002).

twentieth centuries, and still gathers pace. The main reason for that is the scale of habitat loss for species other than humans and their preferred domesticates. As people burned off tropical forests at unprecedented rates after 1960, they disrupted zones of high biological diversity. A typical patch of intact Amazonian forest might have 100 to 1,000 times as many species as a same-sized patch of forest in Ontario. So the geographical location of deforestation carried vast implications for its impact on biological diversity. Late in the twentieth century, biologists concluded that the scope and speed of species loss had reached the point where life on Earth had entered into its sixth great spasm of extinctions, the first in 65 million years.<sup>10</sup>

The sixth extinction dipped into the seas as well. Here habitat loss played a smaller role until late in the twentieth century, and the marine versions of hunting – fishing and whaling – loomed larger than on land. Fishing pressure had affected fish populations and marine ecosystems before 1750 in select spots. But the advent of steam-powered trawlers and refrigerated railway cars for shipping fish to inland markets changed the seascape forever. By the 1890s the North Sea and the Gulf of Maine showed signs of overfishing. In the next decades the most energetic expansion in fisheries took place in the waters around Japan, which built the world's largest trawler fleet and by 1930 became the world's number one fishing nation. Soon marketable fish in accessible waters grew scarce, and the Japanese fleet had to roam further from home, creating conflicts with China. After the Second World War (a respite for the world's fish), a general planetary assault on edible fish began. New technology made fishers ever more efficient but no more likely to preserve their resource. One after another the great fisheries of the world were overfished, fewer and smaller fish were landed, and some of the historically most abundant, like the North Atlantic cod fishery, crashed (in the early 1990s) and have yet to recover.<sup>11</sup>

Whaling initially exhibited much the same pattern. While people had chased whales for centuries – medieval Arabic texts mention whaling in the Indian Ocean – the scale of operations ratcheted up in the 1780s as demand for whale oil for illumination and lubrication mounted (not least in factories running round the clock). By 1860 the most suitable whale species, the sperm and right whales, were on the cusp of extinction (Fig. 2.6). By 1890, so was the Arctic bowhead. Whalers soon shifted their attention to the Southern Ocean,

10 For a popular account, Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (New York: Henry Holt, 2014).

11 For the Gulf of Maine story, see W. Jeffrey Bolster, *The Mortal Sea* (Cambridge, MA: Harvard University Press, 2012).

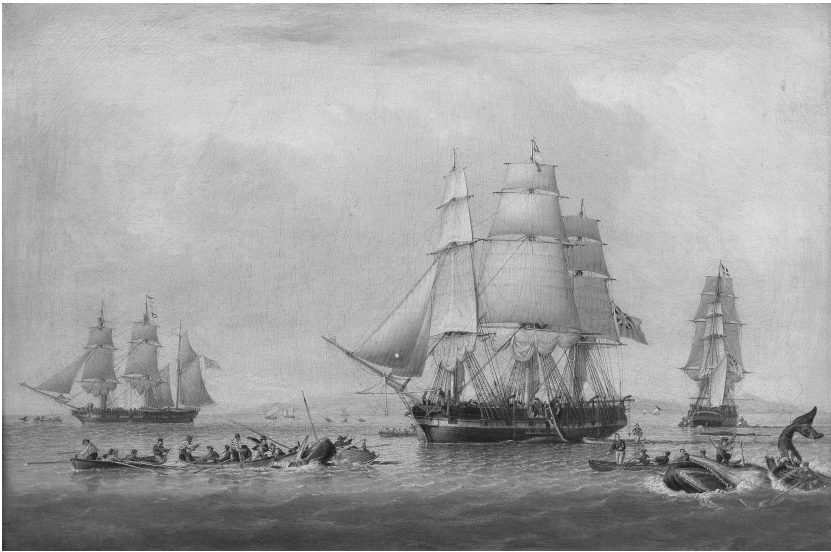


Fig. 2.6 Whalers of the South Seas Fishery by John Ward of Hull  
(Christie's Images/ Corbis)

home to the biggest animals on Earth, blue whales. Too big and fast to catch by traditional means, these whales prospered unmolested until new technologies put them at risk in the early twentieth century. By the 1930s, blue whales were scarce too. Whaling paused during the Second World War but roared back in the 1950s and 1960s, led by Japan and the USSR, to the point where almost every whale species was in danger of extinction. Having nearly killed the goose that laid their golden eggs, the world's whalers – unlike fishers – devised and accepted global regulation. The International Whaling Commission, formed in 1946, at first served as the fox guarding the henhouse. But by 1982 it had acquired more backbone, and imposed a moratorium on whaling in which all but Japan, Norway, and Iceland acquiesced. Since the moratorium, the world's whale populations – as far as one can tell – have begun to recover.

In addition to the sharp reductions in fish and marine mammals, the Anthropocene at sea appeared in the guise of marine pollution on a new scale. Thanks to the invention of durable plastics, the world's oceans became home to gigantic twirling middens of trash in the late twentieth century. The largest of these, in the Pacific between Hawai'i and California, is about twice the size of Texas, a slow-moving gyre of sodden plastic confetti spiced with the occasional kayak, dinghy, or rubber duck. It is continually fed by

plastic swept out to sea by the rivers of the Pacific Rim, and by the contents of transpacific shipping lost overboard in high seas. Most plastics can last decades, and some probably for centuries, before they fully degrade, so it takes only a tiny proportion of the production of the world's petrochemical plants to keep the plastic gyre afloat. Increasingly, the fish, sea birds, and marine mammals of the world, especially those of the northern Pacific, ingest plastic with their meals. Those creatures resistant to the variable (usually mild) toxicities of plastic should prosper: natural selection in this case, as in many other environments, has acquired a new twist.

For all species, on land and sea, the Anthropocene has revised the rules of evolution. Biological fitness – defined as success in the business of survival and reproduction – has increasingly hinged on compatibility with human enterprise. Those species that fit neatly into a humanized planet, such as pigeons, squirrels, rats, cattle, goats, crabgrass, rice, and maize prosper. Others, especially ecological specialists dependent upon specific environments, such as pandas upon bamboo forests, go to the wall.

### Environmentalisms

The progressive endangerment of charismatic megafauna – whales, rhinos, elephants – combined with intense pollution and its attendant human health risks helped to crystallize the modern environmental movement. A cultural and political phenomenon that has begun to affect ecology in modest ways, environmentalism has a tangled and deep root structure, involving British and French imperial administrators, American diplomats, Brazilian slave-owners, German forest managers, Himalayan peasants, Chinese literati, ancient philosophers and kings – and many others of whom historians have yet to find evidence. Their concerns ranged from soil erosion and wildlife extermination to shortages of naval timber and unruly floodwaters. State efforts to restrict deforestation go back at least 600 years, and anti-pollution laws at least 700. It was normally difficult to enforce such rules as existed even when emperors or legislatures fervently wished to protect environments. The power of the state to regulate the conduct of its subjects or citizens with respect to the environment was sorely limited in pre-modern times, but the rise in the last two centuries of more effective regulatory states allowed a more consequential regulatory environmentalism.

Pre-modern efforts to address environmental ills were normally specific in their targets. They identified “nuisances,” a particular source of pollution,

and sought to regulate it. These were local in scope, involving a single tannery or glassworks, or at most the tanneries of a particular city. An exception was the widespread state concern over naval timber supplies, which sought to preserve trees from quotidian exploitation so that in time states might cut them. Another was the hunting grounds of princes, particularly in India, protected from peasant use so that royalty might enjoy a sport of kings.

Less self-interested nature preservation, more conventionally connected to the concept of environmentalism, arrived in the late nineteenth century, driven by disillusionment with urbanization. From the 1870s onward several countries created nature preserves and national parks. This was an elite environmentalism, advanced by politically connected men (and some women), concerned that economic progress might destroy majestic landscapes. The United States, Canada, Australia, and South Africa, among others, began to establish national parks in their most scenic areas, an undertaking that often involved expelling indigenous peoples, ranchers, or hunters. After the revolution of 1917, the USSR expanded an archipelago of nature preserves intended for scientific research, not scenic enjoyment. This wave of environmental concern washed over only parts of the world.

A second wave, which gathered in the 1960s, proved more global. Modern popular environmentalism has multiple variants and countless parents, but nothing did more to make it politically prominent than the urban air and water pollution of the mid-twentieth century, which galvanized effective coalitions into forming. Urban populations normally made their voices heard in the corridors of power more effectively than could scattered peasantries; the issues surrounding urban pollution were on the one hand easily tangible, visible, and smellable, and on the other demonstrably threatening to human health. Moreover, the threats were not easily confined to the politically disenfranchised urban slum dwellers. Dangerous air and water sometimes menaced the rich and powerful in the cities too.

For all these reasons, between 1960 and 1980 a new environmentalism washed over the world, from the cities of Japan, Europe, and North America to the forests and floodplains of India and Brazil. It flourished in open societies suffering from conspicuous environmental problems, such as Sweden, where acid rain damaged lakes and industrial and urban effluent threatened the Baltic Sea. It served as one of the few tolerated forms of public dissent in parts of the old Soviet bloc, such as Hungary and Poland, and does so today in China. It became a routine feature of politics in some places, such as the Netherlands, Germany, and Canada, and an ideology of



insurgency in others, such as Peru. It has become a capacious and incoherent global movement, loosely uniting peasants concerned with access to forest resources, urbanites worried about air quality, and everyone vexed by climate change or overfishing. It has been adopted as a priority, rarely a high one, by hundreds if not thousands of government bodies and corporations, and forms part of the education of almost every schoolchild around the world. To date, however, states and societies retain their traditional priorities of military security and economic growth, tempered only somewhat by environmentalism.

Environmentalism gathered momentum when it did because the ecological disruption of the modern world had reached an unprecedented scale and pace, and because a ready audience emerged. The environmental turbulence of the years 1800–1950, when coal was king and industrial demand and long-distance migration remade the world's frontiers, was unsettling to hundreds of millions. But most of them had no way of uniting with others as aggrieved as themselves, no way to coalesce as a political and cultural movement. After 1950, with pell-mell urbanization, ever-cheaper transport and communication, not to mention higher literacy and (on balance) less censorship and political oppression, an audience for environmentalism formed just as the oil age added new environmental concerns on top of the old. The post-1950 environmental tumult, with its local and regional anxieties about accelerated deforestation, overfishing, soil erosion, and urban pollution, and eventually its global concerns about population growth, climate change, and the ozone hole, had something to worry almost everyone.

## Conclusion

Whosoever is writing a modern History, shall follow truth too neare the heeles, it may haply strike out his teeth.

– Walter Raleigh, 1614

Sir Walter Raleigh recognized the hazards of trying to distill meaning from a story still in full gallop. The environmental history of the world since 1750 has been tumultuous, and that tumult is still in train. It is too soon to tell just about anything, roughly analogous to assessing the history of the Second World War in early 1943. It may be that in fifty or seventy years the main drivers of rapid environmental changes – fossil fuel energy use and population growth – will have dwindled, and the gallop slowed to a stately walk. If so, that will be a good time to look back and assess modern environmental history. Until then, premature assessments like this one will have to do.

A group of Austrian scholars, using an abstract, generalized index of human impact on the environment, estimated recently that that impact doubled in the eighteenth century, and doubled again in the nineteenth. It doubled again, 1900–1950, and then tripled in the latter half of the twentieth century. Cumulatively, this comes to a twenty-four-fold increase in human environmental impact 1700–2000, and the figure would be about the same for the years 1750–2015. This is no more than a heuristic device, but it helps as a simple way to think about the planetary consequences of human actions in the modern period. One might revise the coefficients up or down a bit (I would lower it for the eighteenth century and raise it for the post-1950 period), but the general impression this exercise conveys – tumult – is the right one.<sup>12</sup>

The last 250 years amount to the most tempestuous period in the relationship between humankind and the natural world since the eruption of Mount Toba some 73,000 years ago. That event brought a prolonged “volcanic winter,” pushing our ancestors to the brink of extinction. Climate change has battered humankind time and again, and people have altered (and occasionally obliterated) this or that bit of the biosphere over the millennia. Big changes have occurred, such as domestication, or the Columbian Exchange. But there has been nothing like the scale and scope of environmental change since 1750.

Thus it is apt to refer to this period, whether starting in 1750 as this chapter does, or 1800 or 1850 – for which good arguments could be made – as the Anthropocene. And it is within this rapidly evolving bio-geophysical context, the Earth and all its systems, that what historians habitually call modern history played itself out. Humans changed the environment, and the changing environment changed humans. That embrace is as it always has been, except lately it acquired an ever greater intensity and speed, like a spinning figure skater in an ever tighter spiral.

### Further reading

Blackbourn, David. *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany*. New York: Norton, 2006.

Cronon, William. *Nature's Metropolis: Chicago and the Great West*. New York: Norton, 1991.

- 12 Marina Fischer-Kowalski, Fridolin Krausmann, and Irene Pallua, “A sociometabolic reading of the Anthropocene: modes of subsistence, population size and human impact on earth,” *The Anthropocene Review* 1 (2014) originally published online January 21, 2014: <http://anr.sagepub.com/content/1/1/8.full.pdf+html>.



- Crosby, Alfred. *Children of the Sun: A History of Humanity's Unappeasable Appetite for Energy*. Cambridge University Press, 2007.
- Ecological Imperialism: The Biological Expansion of Europe, 900–1900*. Cambridge University Press, 1986.
- Cushman, Gregory. *Guano and the Opening of the Pacific World: A Global Ecological History*. Cambridge University Press, 2014.
- Guha, Ramachandra. *Environmentalism: A Global History*. New York: Longman, 2000.
- Habib, Irfan. *Man and Environment: The Ecological History of India*. Aligarh Historians Society, 2011.
- Josephson, Paul, et al. *An Environmental History of Russia*. Cambridge University Press, 2013.
- Kolbert, Elizabeth. *The Sixth Extinction: An Unnatural History*. New York: Henry Holt, 2014.
- Kumar, Deepak, Vinita Damodaran, and Rohan D'Souza, eds. *The British Empire and the Natural World: Environmental Encounters in South Asia*. Oxford University Press, 2011.
- McNeill, J. R. *Something New under the Sun: An Environmental History of the Twentieth Century*. New York: Norton, 2000.
- McNeill, J. R., and Erin S. Mauldin, eds. *A Companion to Global Environmental History*. Oxford: Wiley-Blackwell, 2012.
- Meinert, Carmen, ed. *Nature, Environment and Culture in East Asia: The Challenge of Climate Change*. Leiden: Brill, 2013.
- Miller, Shawn. *An Environmental History of Latin America*. Cambridge University Press, 2007.
- Muscolino, Micah. *Fishing Wars and Environmental Change in Late Imperial and Modern China*. Cambridge, MA: Harvard East Asian Monographs, 2010.
- Platt, Harold. *Shock Cities: The Environmental Transformation and Reform of Manchester and Chicago*. University of Chicago Press, 2005.
- Pomeranz, Kenneth. *The Great Divergence: China, Europe, and the Making of the Modern World Economy*. Princeton University Press, 2000.
- Radkau, Joachim. *The Age of Ecology*. New York: Wiley, 2014.
- Nature and Power: A Global History of the Environment*. Cambridge University Press, 2008.
- Richards, John F. *The Unending Frontier: An Environmental History of the Early Modern World*. Berkeley, CA: University of California Press, 2003.
- Ross, Corey. *Nature and the New Imperialism: Europe and the Ecological Transformation of the Tropical World, 1870–1960*. Oxford University Press, forthcoming.
- Santiago, Myrna. *The Ecology of Oil: Environment, Labor, and the Mexican Revolution, 1900–1938*. Cambridge University Press, 2009.
- Smil, Vaclav. *Energy in World History*. Boulder, CO: Westview Press, 1994.
- Harvesting the Biosphere: What We Have Taken from Nature*. Cambridge, MA: MIT Press, 2013.
- Steffen, Will, J. Grinevald, P. Crutzen, and J. McNeill. "The Anthropocene: conceptual and historical perspectives." *Philosophical Transactions of the Royal Society A* 369 (2012), 842–867.
- Steinberg, Ted. *Down to Earth: Nature's Role in American History*. Oxford University Press, 2002.
- Tucker, Richard P. *Insatiable Appetite: The United States and the Ecological Degradation of the Tropical World*. Berkeley, CA: University of California Press, 2000.

- Walker, Brett. *Toxic Archipelago: A History of Industrial Disease in Japan*. Seattle, WA: University of Washington Press, 2009.
- Williams, Michael. *Deforesting the Earth: From Prehistory to Global Crisis*. University of Chicago Press, 2002.
- Wohl, Ellen. *A World of Rivers: Environmental Change on Ten of the World's Great Rivers*. University of Chicago Press, 2011.
- Zelko, Frank. *Make It a Green Peace! The Rise of Countercultural Environmentalism*. Oxford University Press, 2013.

Useful websites for quantitative data on energy, population, and environment include:

- BP Statistical Review of World Energy at: [www.bp.com/content/dam/bp/pdf/Energy-economics/statistical-review-2014/BP-statistical-review-of-world-energy-2014-full-report.pdf](http://www.bp.com/content/dam/bp/pdf/Energy-economics/statistical-review-2014/BP-statistical-review-of-world-energy-2014-full-report.pdf).
- UN Population Division: [www.un.org/en/development/desa/population/](http://www.un.org/en/development/desa/population/).
- HYDE (History Database of the Global Environment) maintained by the Netherlands Environmental Assessment Agency: [themasites.pbl.nl/tridion/en/themasites/hyde/](http://themasites.pbl.nl/tridion/en/themasites/hyde/).

## The economic history of agriculture since 1800

GIOVANNI FEDERICO

### Introduction: two centuries of successes

Today agriculture does not enjoy a great reputation. In advanced countries, it is blamed for being inefficient and polluting. In less developed countries (LDCs), it is accused of failing to perform its main task – i.e. producing enough to feed the population at affordable prices. Yet the historical performance of the agricultural sector does not warrant this pessimism. In the last two centuries, world agriculture succeeded in producing enough to provide more food per capita than ever before, in spite of an almost seven-fold increase in population, and to supply industries with raw materials, all using less land, capital, and labor per unit of output. It has been a really remarkable feat, and this chapter describes how it was achieved.<sup>1</sup>

Mapping the growth of total production in the first seventy years of the nineteenth century is not easy. There are few, and often only tentative, series of data, which refer almost exclusively to countries in Europe and North America. In none of these countries, however, other than Portugal, did total output decline, and in the majority of cases it increased faster than population. We cannot rule out that these gains were offset by a decline in output per capita elsewhere in the world, but this hypothesis is not terribly plausible. The world's growing population was mostly employed in agriculture and, as we will detail in the next section, land was abundant. The quantitative evidence is more solid after 1870. It is possible to estimate an index of “world” output from national production series for twenty-five countries,

<sup>1</sup> The chapter relies heavily on Giovanni Federico, *Feeding the World: An Economic History of Agriculture, 1800–2000* (Princeton University Press, 2005), where the reader can find additional material and references.



Figure 3.1 Output and population

accounting for about 50–55 percent of world population.<sup>2</sup> The list includes all European countries (except the Balkans), the United States, Canada, the main Asian countries (India, China, Indonesia, and Japan), and three countries in South America (Argentina, Chile, and Uruguay). Production per capita in these twenty-five countries increased quite fast before the First World War (at a yearly rate of 0.55 percent) and stagnated from 1913 to 1938 (Fig. 3.1).

If the output per capita of the missing countries had been growing as much as their population (a reasonable hypothesis), total world production increased by 90 percent and per capita output by about 10 percent. Figure 3.1 then links the twenty-five country series to the series by the Food and Agriculture Organization of the United Nations (FAO), which covers all countries. From 1938 to 2010, world production increased by almost five times, and output per capita by 60 percent. This total includes some dubious series for LDCs and for socialist ones (China, USSR, and satellite countries until the 1990s), but no plausible bias in country series can question the outstanding performance of agriculture. The output is more than sufficient to feed the world population. Undernourishment, which, according to the latest

2 Giovanni Federico, "The growth of world agricultural production, 1800–1938," *Research in Economic History* 22 (2004), 125–181.

data by the FAO, still affects about 1 billion people, is a consequence of inefficiency in distribution and wastage.

Production can be augmented by using more inputs – capital, labor, and land – and/or by using them more efficiently. Section two of this chapter outlines the growth in inputs, and shows that it can account only for a part of the increase in output. Most of the growth was the result of an increase in productivity, and the remaining sections in this chapter deal with its causes. Growth in productivity is usually identified with technical progress, and section three describes the main innovations and the pattern of adoption. However, efficiency depends also on how factors are allocated and techniques are used – and thus ultimately also on institutions (section four) and policies (section five). The final section speculates about the prospects for the future.

### The growth of inputs

The evidence on the growth of inputs is fairly abundant, but incomplete. Before 1913, sources refer mostly to Europe and North America, and during the interwar years the country coverage, although increasing, is still only partial. The FAO website provides a world total only since 1960. In order to minimize the impact of differences in coverage, the tables report chained indexes, with a base in the year 2000 of 100. The implicit world total can be computed by multiplying the indexes by the absolute figures in 2000 (last column on the right)

Table 3.1 proxies the amount of labor with the number of workers, of both genders. Thus for every 100 workers in agriculture in Africa in the year 2000, for example, there were 51 workers in 1960; and for every 100 in Europe in

Table 3.1 Workforce

Continent	c. 1880	c. 1910	c. 1938	1960	2000	2000 (mil.)
Africa			31	51	100	197.1
Europe	392	392	359	309	100	17.6
Canada and USA	304	405	340	173	100	3.4
Latin America*	24	44	68	83	100	44.2
Asia	34	41	42	59	100	1031.8
Oceania	36	57	68	64	100	2.8
Former USSR			203	178	100	21.7
World				64	100	1318.6

Source: Federico, *Feeding the World*, tables 4.16 and 4.17

\* including Mexico and Central America

2000, there were 309 workers in 1960. The major reason for the significant increase in Africa from 1960 to 2000 was the general population increase, and for the decrease in Europe the movement of workers out of agriculture.

The table highlights a key distinction between the number of agricultural workers and their share of the total workforce. This latter is bound to decline as a consequence of modern economic growth, but the relative decline does not necessarily cause the absolute number of workers, the labor input, to decrease. Actually, the number has declined only in a handful of advanced countries and only long after the start of their modern economic growth. The agricultural workforce did peak in the United Kingdom around 1850, but in other advanced countries of Europe and North America it peaked sometime in the first half of the twentieth century, and collapsed only after the Second World War. Worldwide, the agricultural workforce grew because of global population growth until 2010, although at a decreasing rate.

The number of workers might not be an accurate measure of labor input. In fact, it assumes a constant number of hours per worker and a constant intensity of work. It omits part-time work by non-agricultural workers (e.g. at harvest time) and does not take into account changes in the human capital of workers. The evidence and some reasoning suggest that these biases work in different directions. For instance, the human capital of agricultural workers has increased spectacularly in advanced countries after 1950, but the trend has been compensated by a decline in the number of hours worked and possibly in the contribution from non-agricultural workers. The net effect is difficult to measure but probably not very large – so that the total increase of the input of labor should not differ much from the headcount.

Table 3.2 reports comparable indexes for the extension of cropland and tree crops, the best available proxy for land input. Since 1880, acreage has increased all over the world. The story of the settlement of the American West is well known thanks to many Hollywood movies, but the pattern has been repeated, with some delay (and without movies) in all other lands of European immigration, such as Canada, South America, and Oceania. Cropland increased also in Asia and Africa, with little or no contribution from Europeans. Even in a supposedly overpopulated country such as China there was a lot of land to exploit, especially in the north, where 8 million Han Chinese settled from 1860 to 1940. The exception was Europe, or more precisely the core areas in the West (acreage went on growing in the “periphery” – the Iberian peninsula and Russia – until the First World War). There, acreage has fluctuated throughout the period, with a clear downward trend in the 1980s and 1990s. The table does not cover the period before 1880,

Table 3.2 Acreage

Continent	c. 1880	c. 1910	c. 1938	1960	2000	2000 (mil. ha.)
Africa			86	77	100	201.8
Europe	110	112	112	114	100	133.2
Canada and USA	41	77	91	100	100	231.1
Latin America*		44	73	63	100	153.1
Asia	29	58	64	85	100	511.7
Oceania	7	22	34	66	100	53.0
Former USSR	48	52	55	110	100	2,17.5
World			81	90	100	1,501.5

Source: Federico, *Feeding the World*, tables 4.1, 4.3, and 4.5

\* including Mexico and Central America

but there is very little doubt that acreage had been growing parallel to population in all areas, except perhaps Western Europe. If land was still abundant in 1880, *a fortiori* it was abundant one century before.

There are two reasons to suspect that figures in Table 3.2 overstate the actual increase in land input. First, they assume that all additional cropland was not productive at all. This inference is plainly wrong for pastures. Unfortunately, the data on acreage under pasture before 1960 are scarce and plagued by inconsistent definitions. Since 1950, pastures have increased about as much as cropland – i.e. this latter is not a biased measure of total acreage in use. Second, the figures would overstate the increase if the best land were settled first. This seems a common-sense rule, but it does not hold true for large-scale colonization, which depends on the available infrastructures. For instance, the *pampa humida* in southern Argentina is more suited for agriculture than the area around Buenos Aires, but it was settled later.

It is impossible to sum up trends in agricultural capital in a simple table, because it consists in a number of widely different items – tree crops, buildings, livestock, irrigation works, tools and machinery, and so on – which must be added together in monetary terms to get a meaningful total. The FAO provides an estimate of “world” capital stock, which shows a 25 percent increase from 1975 to 2000 – i.e. much less than output. For the period before 1975, there are few series, which refer only to advanced countries and often cover only a subset of items. Most of them show an increase, which is, unsurprisingly, faster in the USA, Canada, and Russia than in Western Europe. It is thus necessary to use the information on specific components of capital, such as the number of tractors or the extension of irrigated land. Such an analysis highlights four different patterns:

- (1) In 1800, the capital stock in the countries of Western Settlement was negligible, except in small parts of old colonization areas, such as the American East Coast. Colonization entailed massive investments, and the rate of accumulation dropped after the end of the process. The adoption of modern, capital-intensive technologies caused a boom in investments from the 1930s onwards.
- (2) The “advanced,” long-settled countries of Western Europe had traditionally a very substantial capital stock. Thus it grew until the Second World War decidedly slower than in the Western Settlement countries. The postwar spurt was similar.
- (3) In “backward,” long-settled countries, most notably China, the capital stock around 1800 was quite large, possibly even greater than in Europe because of the extensive irrigation works needed for rice-growing. It grew very slowly or did not grow at all until quite recently and then boomed, with the intensive use of fertilizers and also mechanization.
- (4) In “backward,” less densely populated countries, such as many of those in Africa, the capital stock was initially minimal, and it grew only as much as the population did, probably until the Second World War. Since 1950 the per capita stock of capital has increased, but much less than in Asia.

Summing up, all inputs have been growing throughout the whole period, but there is evidence of a slowdown after 1950, at least for labor and land. It seems highly unlikely that the acceleration in the growth of capital stock was large enough to compensate for this. Therefore, the sharp acceleration in the growth of output since 1950 must reflect an increase in the efficiency in using these inputs – or to use the economists’ jargon, an increase in Total Factor Productivity (henceforth TFP). This inference has not escaped economic historians and economists, who have produced literally hundreds of estimates of TFP. Table 3.3 shows the estimates available for the period to 1938 as continent-wide averages, though these are often derived from data on only one country. (“Number” on the table refers to the number of countries in the data set.)

The geographical coverage is limited and the estimates are often fairly crude, but two facts stand out. First and foremost, TFP grew almost everywhere, and this by itself is a major change from notions of the (alleged) stagnation of traditional agriculture. A 0.5 percent yearly growth may seem slow, but, when cumulated over forty years, corresponds to a 25 percent increase, and this is far from trivial. The cases of falling TFP are very rare: the two negative signs in the table refer to Argentina and Egypt, and one must



Table 3.3 Growth in total factor productivity to 1938

	Before 1870		1870–1910		1910–1940	
	Number	Average	Number	Average	Number	Average
Europe	5	0.30	13	0.65	11	1.00
Europe (Van Zanden)			15	0.78		
Western Settlement	1	0.40	2	0.74	2	0.56
Asia			3	1.24	6	0.08
Africa	1	3.41	1	0.83	1	−0.21
South America			1	−1.90	2	1.57

Sources: Van Zanden, “The first green revolution,” Federico, *Feeding the World*, Statistical Appendix table 1v, Lains and Pinilla, *Agriculture and Economic Development*

add the Philippines and the Soviet Union in the interwar years. Second, in most countries, productivity growth has accelerated over time. For instance, the growth rate of TFP in the United States was 0.4 percent in 1840–1870, increased by a third in 1870–1910 and then, even according to the most conservative estimates, by a further half in the next thirty years.

The available estimates for the postwar period cover almost all independent countries with a variety of methods and for different periods. Whenever a direct comparison is possible (i.e. for eighteen country cases) the data show a further acceleration of productivity growth: the postwar rates are on average almost three times higher than the prewar ones. About 70 percent of the estimates are positive, and the negative rates concentrate in socialist countries and in Sub-Saharan Africa. The rates for some African countries are so low as to be somewhat suspicious. These countries drag down the unweighted mean of country rates to “only” 0.7 percent per annum. Indeed computing a “world” rate over the period 1960–2000, as if the whole world were a single country, yields significantly higher figures. They vary, according to the method of computation, between 1 percent and 1.25 percent per annum. TFP grew decidedly faster in OECD countries, where rates range between 1.5 percent and 1.8 percent, than in the rest of the world (rates from 0.8 percent to 1 percent). The excellent performance of agriculture in the postwar years emerges by a comparison with the rate of TFP growth in manufacturing for a sample of thirty-six countries in 1967–1992: agriculture outperformed manufacturing in twenty-two countries.<sup>3</sup>

3 Will Martin and Devashish Mitra, “Productivity growth and convergence in agriculture versus manufacturing,” *Economic Development and Cultural Change* 49 (2001), 403–423.

## Technical progress in agriculture

In over two centuries, farmers have introduced thousands of innovations, which for the purpose of illustration can be grouped into four categories – new practices of cultivation, new plants and animals (biological innovations), chemical products, and machinery (industrial innovations).

Most new practices aimed at reducing the length of periods of rest for the soil, which was the traditional way to restore soil fertility depleted by cultivation. In traditional agricultural systems, the number of crops per year (or cropping ratio) ranged from 0.05 in the so-called slash and burn systems (i.e. two or three years of crops followed by twenty to thirty years of rest) to figures above one in the most intensive irrigated rice cultivation in Asia, where fertility was restored by water and intense manuring. In most of Europe, land was left idle (fallow) one year out of three – i.e. the ratio was around 0.6. The ratio was increased by substituting fallow with the cultivation of fertility restoring plants, such as grass, roots (e.g. turnips and potatoes), and maize. This practice had been used in some areas of Europe since the Middle Ages, but in the late eighteenth and early nineteenth centuries it spread widely in England, earning the name of the “Agricultural Revolution,” and with some delay all over the Continent. Towards the end of the nineteenth century the succession of crops (rotation) became very sophisticated. The increasing use of rotations and of fertilizers improved the cropping ratios. On the eve of the Second World War, they were slightly below one in Europe and the United States, and over 1.3 in China, Korea, and Taiwan, with a country-wide world record of 1.6 in Egypt. Since then, the ratio has increased further, approaching one worldwide at the end of the 1990s, with maxima around three in some areas of Asia.

Any variety of plant (or animal) is new from the point of view of the individual farmer who cultivates or raises it for the first time, but from the point of view of agriculture it is important to distinguish its source – the casual discovery, the transfer from other areas, or the artificial creation via the hybridization of existing varieties. Casual discoveries have always been rare and in the most recent period their role has further diminished. The latest discovery of a new plant, the sugar-beet, dates back to the late eighteenth century, and the latest discovery of a new wheat variety to 1862. The contribution of long-range transfers has been similarly declining. It had been very important during the age of discoveries, and had had a sort of revival in the nineteenth century because of the combined effects of the efforts of governments, which wanted to foster the economic potential of agriculture, and

immigrants, who often brought with them the seeds and plants of their native countries. There were some notable successes – such as the introduction of early ripening varieties of Russian wheat in the Canadian prairies or of the rubber tree, originally from Brazil, in Southeast Asia. Hybrid animals had always been known (mules are hybrid of horses and asses), and the theoretical possibility of hybridizing plants was first suggested in the eighteenth century, with experiments starting in the mid-nineteenth century. However, the initial results were disappointing, as techniques were still primitive and not yet supported by the knowledge of mechanisms of genetic transmission, which were (re-)discovered at the end of the century. The first great success was the production of hybrid corn (that is, maize) in the 1930s. In the 1940s researchers started to work on wheat and maize varieties fit for the Mexican environment, and in the late 1950s on rice in the Philippines. The effort paid off handsomely: some varieties, aptly named high-yield varieties (HYV), in the right conditions, produced up to eight times that of the traditional ones. The results of their adoption were so stunning that this transformation earned the nickname of the “Green Revolution.” Since the 1980s, the potential for the production of new varieties has been boosted by genetic engineering. The first genetically modified variety of tomato was commercialized in 1994.

The major contribution of the chemical industry to agricultural progress was the solution, apparently for good, of the problem of restoring soil fertility. In 1840 the German scientist Liebig discovered that soils needed (different combinations of) phosphates, potash, and nitrogen. The commercial production of phosphates started the following year and that of potash in 1856. Nitrogen was first supplied by natural sources, such as Chilean nitrates and Peruvian guano, and then by the production of coke. However, output boomed and prices collapsed after the discovery of the Haber-Bosch method of producing ammonium sulfate in 1909. The first chemical fertilizers were marketed in Germany in the 1920s. Chemical products were used since the late nineteenth century to fight diseases and parasites, but results were rather poor until the 1940s and the discovery of DDT.

Water and, later, steam-powered machines had always been used for processing agricultural products (e.g. for milling), but mechanization of fieldwork started quite late. Arguably, the first machine was the wheat harvester, or reaper, which Hussey and McCormick patented independently in 1833–1834. In the next decades, investors focused on increasing labor productivity in harvesting, introducing joint machines for reaping and threshing (the combine) in the 1880s, the corn picker in 1900, the cotton picker in 1907–1912, and so on. However, mechanization was delayed by the lack of a

suitable source of inanimate power. Neither water nor steam was, for different reasons, really suitable. Mechanization really took off only after the introduction of tractors powered by internal combustion engines since the early 1900s, and was boosted by the introduction of the power-take-off shaft (or PTO), which transformed the pulling power of the engine into a rotatory movement.

All (successful) innovations cut production costs by reducing the amount of factors per unit of product, but their effects on the demand for factors differ. Some innovations save all factors in the same proportion (neutral), others save mostly one factor (say land), and some others need more of a factor to save others. With the possible exception of rotations, agricultural innovations were capital-intensive – i.e. they needed additional investments to purchase seeds, machinery, fertilizers, and so on. Machinery saved labor, by definition, but also land, as tractors reduced the number of horses and other animals and thus the need for feed. Chemical products and new varieties increased production per unit of land and thus saved land.

Basic economic theory suggests that the benefits of substituting for a factor are, all things being equal, greater the more it costs, and that the cost depends on its scarcity. Thus, one would expect that the transfer of technologies from advanced countries to LDCs was hampered by absolute scarcity of capital and by the poor development of institutions for agricultural credit. One would also expect that land-scarce Europe was on the forefront of the adoption of fertilizers and new varieties, while labor-scarce Western Settlement countries pioneered mechanization. Indeed, on the eve of the Second World War, tractors already accounted for about two-thirds of total power used in the United States and for a third in the United Kingdom, the most mechanized country in Western Europe. In contrast, the United States consumed on average 9 kg of fertilizers per hectare, versus 26 kg in Italy and 300 kg in the Netherlands. These differences have narrowed since then, but they still persist: in 1998–2000 Italy consumed 60 percent more fertilizers than the United States, and the Netherlands five times more, while the United States had about double the number of tractors per worker than did Western Europe. Hayami and Ruttan go a step further along this line of reasoning.<sup>4</sup> They argue that factor endowment affects not only the adoption of innovations but also their production. Land-scarce countries invest more in research on land-saving innovations. Their view is controversial, however.

4 Yujiro Hayami and Vernon Ruttan, *Agricultural Development: An International Perspective*, 2nd edn (Baltimore and London: Johns Hopkins University Press, 1985).

Olmstead and Rhode argue that even the quintessential labor-scarce country, the United States, invested more in biological innovations than in mechanical ones until the 1930s.<sup>5</sup>

Factor endowment can explain a lot, but it is not sufficient to account for all differences in the rate of adoption of innovations in agriculture across countries, for two reasons. First, most agricultural innovations are environment-specific. A new variety might perform wonders where developed and prove unsuitable in another location, with different soil, water, and so on. Second, many innovations are complementary or interrelated, i.e., they can develop their potential only if adopted jointly. The high-yielding varieties need more fertilizers and more water than the traditional ones. The Green Revolution was not just a change in varieties, but a comprehensive package that transformed agriculture altogether. The environmental suitability of a specific innovation and the right package of innovations can be discovered only with systematic testing in specialized research facilities.

The need for additional testing increases the overall cost of R&D (research and development) but this is not the only problem for the production of agricultural innovations. The main problem is the appropriability of “biological” innovations – i.e., the possibility to recover the costs of successful R&D. In fact, new practices of cultivation or natural varieties are very easy to imitate and hybrid seeds can be produced by any firm with the necessary skills. The inventors risk losing part of the potential returns from their investments and thus the expenditures in R&D may be less than those socially optimal. The gap should be filled by non-profit expenditures. In the late eighteenth and early nineteenth centuries, some money was disbursed by enlightened landlords. Some very enlightened landlords, such as John Bennet Lawes, ceded their estates to set up research facilities (Rothamsted in the United Kingdom). Less generous ones gathered in learned societies, such as the Royal Agricultural Society of England (established in 1838), to test innovations and spread knowledge about new techniques. Some money was supplied by non-profit organizations, such as the American Ford and Rockefeller foundations, which funded the early research on high-yielding varieties in Mexico. However, the resources of private foundations were too limited relative to the needs, while the willingness to commit by landlords was beset by a free-riding problem: why should they organize field trials if they could get the information from trials organized by someone else? Thus,

5 Alan Olmstead and Paul Rhode, *Creating Abundance: Biological Innovation and American Agricultural Development* (Cambridge University Press, 2008).

by far the major source of funding of R&D in not appropriable agricultural technologies has been the public purse.

Some research was performed in universities and government-established experimental stations. The idea was pioneered by the government of Saxony (1851), which was imitated by the United States and by most European countries (with the notable exception of the United Kingdom). At the turn of the century, colonial powers funded R&D in tropical cash crops for exports (cocoa, rubber), while research in food crops took off after the Second World War, with the creation of specialized institutions (e.g. CIMMYT in Mexico for wheat, the IRRI in the Philippines for rice), which were co-ordinated in 1971 by the Consultative Group on International Agricultural Research (now CGIAR). The total investment was substantial. In the United States, total expenditures increased from 2 million (1993) dollars in 1889, equivalent to 0.03 percent of gross agricultural output, to 50 million on the eve of the Second World War (0.7 percent), and exceeded 500 million (over 2 percent of output) in the late 1990s. According to the best estimates, worldwide public expenditure increased by 150 percent in the 1960s, by 50 percent in the 1970s, by 30 percent in the 1980s and only by 15 percent in the 1990s.<sup>6</sup> By 2000, total expenditure was equivalent to 2.4 percent of gross output in advanced countries, but only to 0.53 percent in developing ones (and to 0.8 percent worldwide). Expenditures for diffusion of best practices among farmers (so-called extension) doubled from 1959 to 1971 and increased by 25 percent in the next decade. The clear slow-down in public spending in R&D was compensated, at least in the advanced countries, by a surge in private investments, which was related to a major institutional change, the extension of patenting rights to living species. This measure had been advocated by firms selling seeds and plants since the beginning of the twentieth century and it was granted for the first time, but for trees only, in the United States in the 1930s. In 1960, European Union countries extended the right to all plants and in 1961 they signed an inter-country agreement for the mutual recognition of patents, the International Union for the Protection of New Varieties of Plant (UPOV). The United States followed suit in 1970. As of 2011, UPOV has sixty-nine member countries. Private expenditure in agriculture-specific R&D (i.e. excluding mechanical or chemical research) overtook public expenditure in the United States already in the 1980s, and by 2000 private expenditure

6 Federico, *Feeding the World*, table 6.6, and Philip Pardey, Julian Alston, and Roland Piggott, *Agricultural R&D in the Developing World: Too Little, Too Late?* (New York: IFPRI, 2006).

accounted for about a third of world total and for over half of the expenditure in advanced countries.

### Institutions and agricultural performance in the long run

In the economists' jargon, institutions can be defined as the set of formal or informal rules that determine the ownership of the goods and factors (property rights) and regulate the interactions among individual agents or households (contracts, markets, and other forms of distribution). There is a wide consensus among historians, economists, agricultural experts, and policymakers on the relevance of institutions as a whole for agricultural growth, but also wide differences of opinion about the importance of each type of institution and its effects.

Economists believe that modern property rights are necessary to exploit the full potential of an economy and thus they assume that their diffusion improves agricultural performance. Property rights are not antithetical to personal freedom, yet a sizeable share of the world population was denied this as late as the mid-nineteenth century. The slave trade had been formally banned in 1807, but slavery was outlawed in many countries only much later (in the United States in 1865, after the Civil War, in Brazil in 1888) and survived in some areas, such as Nigeria, well into the twentieth century. Serfdom, which tied workers to the estate rather than to an individual master, was abolished in 1861 in Russia and three years later in Romania.

Economists strongly believe in the benefits of modern property rights to land – including the right to sell and bequeath it.<sup>7</sup> They prevent the excessive exploitation of land for short-term gains (the so-called tragedy of the commons), stimulate location-specific investments and experimenting with new techniques, and allow the use of land as collateral for borrowing. By 1800, full ownership prevailed only in Western Europe, in the already settled areas of countries of Western Settlement, such as the East Coast of the United States, and in parts of Asia, including most of China.<sup>8</sup>

7 H. De Soto, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (London and New York: Bantam Press, 2000).

8 Kenneth Pomeranz, "Land markets in late imperial and republican China," *Continuity and Change* 23 (2008), 101–150; Mio Kishimoto, "Property rights, land, and law in Imperial China," in Debin Ma and Jan Luiten van Zanden, eds., *Law and Long-term Economic Change: A Eurasian Perspective* (Stanford University Press, 2011), pp. 68–90.

Elsewhere, the rights to land were jointly held. In some areas, feudal lords or other powerful individuals had the right to claim a part of the product and/or of the time of workers. In most areas, however, the rights to land were owned collectively by all users. Tribes of hunter-gatherers used it collectively, while in more settled areas, such as Russia, land was allocated to households for cultivation for a predetermined period and under the control of the village.

In the last two centuries, these traditional property rights have been disappearing. The process has been slow, featuring massive reversals, such as the collectivization of previously private land in the Soviet Union in the 1930s and in China in the 1950s, and is not yet fully over. The feudal systems of Eastern Europe were the first to disappear, in the first half of the nineteenth century. The land was divided between peasants (former serfs) and former lords, who often also got financial compensation. In theory, common ownership could be abolished by transforming the temporary allocation of land into full permanent ownership. In most cases, the process was very gradual, with intermediate stages: in Turkey it lasted from 1858 to the 1940s, in Indonesia from 1870 to 1960, and so on. Such a direct transfer was not feasible in Africa, Oceania, and the Americas, where, under traditional systems of swidden agriculture or hunting-gathering, only a tiny fraction of the total land was in use. Anyway, European colonial powers ignored the rights of the native peoples and seized all the land European immigrants wanted. The temperate areas of the New World attracted large numbers of European immigrants and so the governments expropriated most of the land and distributed it to settlers, with different procedures (sales, block concession to railway companies, homesteads, etc.). Indigenous peoples got a somewhat better deal in the tropical countries of Asia and Sub-Saharan Africa. There the demand for land by Europeans was comparatively modest and most of the land remained under common ownership of Africans. Colonial administrations started to register the ownership of individual farmers ("titling") in the 1940s and the process has continued since then, with strong support by international organizations such as the World Bank. In 1990, tribal land was down to 0.34 percent of the worldwide total, but it still accounted for 14 percent of land in Africa. The modernization of property rights must have enhanced efficiency and accumulation of capital, but benefits may have been smaller than hoped for. In some cases, as in Mexico, titling was unfair or blatantly rigged and peasants lost their rights. Furthermore, anecdotal evidence and some quantitative analyses



suggest that in many cases, farmers found arrangements to circumvent the shortcomings of traditional property rights.<sup>9</sup>

Historians and agricultural experts tend to pay a lot of attention to the patterns of size and ownership of farms. They deem the concentration of land in the hands of absentee landlords (*latifundia*) a major hindrance to technical progress. Economists acknowledge that land concentration may negatively affect economic growth to the extent that it entrusts political power to an elite who are not interested in growth-enhancing expenditures, such as investment in education.<sup>10</sup> In contrast, the evidence about the negative effect of concentration on technical progress is very weak, if existing at all. Allegedly absentee landlords did introduce innovations whenever profitable. On the other hand, it is fairly clear that large “capitalist” farms do not enjoy any advantage in cultivation (processing is an altogether different case, and it has become an industrial activity). The economies of scale are small, if any, and large farms manned by hired workers are less efficient than family farms. Family farmers have strong incentives to work hard, while preventing wage workers from shirking is much more difficult in agriculture than in manufacturing. It is possible to monitor agricultural workers effectively only while they perform simple tasks, such as harvesting.

The superiority of family-owned farms is revealed by their growing share of total land. In the nineteenth century, they prevailed in Western Settlement countries, in many countries of Europe, especially in the north, and possibly in China. In the late 1930s, according to the so-called agricultural censuses by the FAO, “farms managed by owners” (admittedly including the very few capitalist farms) accounted for about 55 percent of acreage and this figure rose to almost 80 percent at the end of the twentieth century. The coverage by country differs between censuses, but results from a pairwise comparison between identical samples are similar. Furthermore, land is, if anything, more productive in small than in large farms, and thus the share of acreage is likely to underestimate the percentage of output.

In a number of countries, the diffusion of family farms was helped by the intervention of governments, which deemed the concentration of land-ownership unjust. The first land reforms were enacted in the early 1920s by

9 On this situation in Russia, see Steven Nafziger, “Peasant communes and factor markets in late nineteenth-century Russia,” *Explorations in Economic History* 47 (2010), 381–402.

10 Stanley Engerman and Ken Sokoloff, “Factor endowment, institutions and differential paths of growth among New World economies,” in Stephen Haber, ed., *How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico* (Stanford University Press, 1997), pp. 259–304.

the new countries of Eastern Europe and they became a flood after the Second World War.<sup>11</sup> King lists twenty-three measures to 1975 all over the world.<sup>12</sup> However, the share of owner-operated farms rose also in countries or areas where no land reform was enacted. Of course, family farms in advanced countries in the early twenty-first century are very different from traditional ones. According to the latest American agricultural census, in 2007 the 100,000 “very large family farms” (with sales in excess of 1 million dollars and on average 1,366 acres of cropland) accounted for 50 percent of total sales. Yet, even the largest of them was tiny relative to the whole market for agricultural products.

Whenever landowners are not willing (or are not forced) to sell, the advantage of small-scale self-monitoring cultivation can be captured by hiring a tenant and his or her family, for a predetermined sum (fixed-rent tenancy) or for a share of the product (sharecropping). This latter is a very contentious institution. Historians argue that it hinders technical progress, while economists, following Alfred Marshall, suspect it to be inefficient as both tenants and landlords get only half of the returns from the additional amount of factors they provide. Marshall’s argument spawned a huge literature to defend the rationality of sharecropping. This literature offers a lot of good points, but no encompassing theory of the choice of contracts. The scarce quantitative evidence shows that sharecropping was less diffused than fixed rent in the nineteenth century and that its share on total tenanted land, and thus, *a fortiori*, on total acreage, has been declining in the twentieth century.<sup>13</sup> However, without a good theory of contract choice it is difficult to explain this change. The few available tests have uncovered no evidence that sharecropping is less efficient or less innovation-fostering than fixed-rent contracts.

Agriculture is plagued by serious problems of asymmetric information between farmers and buyers of their products or lenders. The former know much more than the latter about the quality of the goods and about their own creditworthiness. Buyers can react to uncertainty by refraining from purchasing, while informational asymmetries in the market for credit can produce a dual market. Banks and other “formal” institutions would lend only to landowners, who can pledge real assets, while all other farmers have to resort to “informal” sources (moneylenders, traders, etc.) and pay very high rates.

11 Hans Jorgensen, “The interwar land reforms in Estonia, Finland and Bulgaria: a comparative study,” *Scandinavian Economic History Review* 54 (2006), 64–97.

12 Russell King, *Land Reform* (London: Bell and Sons, 1977).

13 Giovanni Federico, “The ‘real’ puzzle of share-cropping: why is it disappearing?” *Continuity and Change* 21 (2006), 261–285.

Even if economically rational, this behavior would reduce output and investments below their potential. Governments have tried to help – e.g. by setting up specialized credit banks for farmers – with mixed success. They invested huge sums, but only part of their money reached the farmers and the overall rate of repayment was low. However, the most popular solution to the asymmetric information problem has been the self-organization of farmers into co-operatives. The members of a production co-operative have a collective interest in the quality of the product and thus they will monitor each other to avoid cheating. Similarly, a farmer can assess the credit risk of another farmer in the same village much better than can a bank clerk from the city. On the other hand, local credit co-operatives are highly vulnerable to shocks. A drought can cause the crop of all its members to fail at the same time, and no bank can stand this, unless supported from outside. This latter was provided either by the state or by regional or national associations of co-operatives.

The first co-operatives for agricultural credit were organized in Germany in the 1850s, and the first producer co-operatives in Denmark in the 1880s. In spite of some setbacks, co-operatives have been growing since then. In the mid-1990s, when world agriculture employed about 1.3 billion people, agricultural co-operatives had 180 million members – i.e., one worker out of six if membership was individual and more if the figure refers to households. About 80 percent of these people were in LDCs, but advanced countries, including Japan, account for 80 percent of the total turnover. In Europe co-operatives have up to 80 to 90 percent of markets for perishable or non-homogeneous products, such as fruit and vegetables, wine, and, above all, dairy products. Some of them have built highly successful consumer brands, becoming, in some extreme cases, a threat to competition.

Markets for factors and products are essential to elicit all benefits from specialization and modern technology. Of course, markets had existed well before 1800, but in most cases their beneficial effect was reduced by poorly defined property rights and by high costs of transport and barriers to trade. The evidence on the historical development of factor markets is too sketchy to be of much use. At most, one can surmise that the diffusion of family farming reduced the percentage of full-time laborers in the total agricultural workforce, and thus possibly the depth of the market for their services. Modernization of agriculture, increasing the need for fertilizers and other capital goods, should have increased the demand for capital. The available data refer to “formal” credit and thus they are likely to overstate the growth of total lending to the extent that “formal” credit substituted for “informal” credit.

We know more about the market for commodities. In the long run, the share of marketed products in total output has undoubtedly increased a great deal, and the share of long-distance trade has increased even more, in spite of growing barriers to trade. The most compelling evidence for this hypothesis is the growth in the gross output per worker, well beyond the consumption of farming households, and in the urban population, who have to be fed via markets. In fact, the data on the share of marketed production show a steady increase in all countries. In the 1960s, it exceeded 95 percent of output in the United States and 80 percent in all advanced countries, and it hovered around 40 percent in the least developed African countries. It is likely that since then the share has increased further.

This analysis, although very sketchy, suggests that agricultural institutions were quite flexible although not perfect. In some cases, they may have hampered technical progress or reduced efficiency, and thus output relative to its potential, but on balance these negative effects seem to have been minor.

### Agricultural policies

A comprehensive list of state policies which may affect agriculture directly would include:

- (1) Measures affecting ownership of factors of production (creation of property rights, land reform);
- (2) Provision of public goods to farmers (R&D, infrastructures, marketing support, well-enforced property rights, etc.);
- (3) Provision of public goods to the population (health regulations, repression of food frauds, etc.);
- (4) Transfers to farmers (subsidies, low-cost credit, etc.) or from farmers (taxation);
- (5) Interventions in the domestic market of agricultural products (purchases by marketing boards, etc.) or of agricultural factors (provision of low cost credit, regulation of the agricultural labor market, etc.);
- (6) Interventions in international trade of agricultural products (tariffs, taxes, quotas, etc.).

This section will concentrate on the last three items, which affect directly and immediately the farmer's income. We have already touched briefly on the two first items in this list, and can add that the earliest measures to protect consumers and also producers of premium products such as wine were

adopted in the late nineteenth century, and multiplied in the second half of the twentieth century.<sup>14</sup>

Most pre-industrial polities traditionally did not intervene in agricultural markets, but there were notable exceptions. European states and cities regulated the market for staple foods in order to supply the urban population (and prevent it from revolting), while Qing China set up a network of state granaries. Between the end of the eighteenth century and the beginning of the nineteenth, the Chinese granaries were progressively shut down because of a shortage of funds, and the European regulations were phased out or abolished. At roughly the same time, many European governments, including the United Kingdom, started to protect wheat growers against foreign competition for the first time. This first wave of protection lasted for a few decades, from the late 1810s to the 1850s. After a brief spell of free trade in the 1880s, most European countries, excluding the United Kingdom, returned to protecting wheat growing against the alleged invasion of overseas grains. This is often considered an epoch-making change, but actually duties were not very high and other products were affected much less than cereals, if at all. Indeed, aggregate protection, as measured by the so-called Nominal Rate of Assistance (NRA), remained very low or even negative until the First World War.<sup>15</sup>

The real epoch-making change was the outbreak of the Great Depression, which caused a fall in relative prices of agricultural goods. The European countries protected farmers by increasing duties and by adding quantitative restrictions and regulations of the markets, with the exception of the United Kingdom, which let in imports from the Empire free and compensated farmers with subsidies. On the Continent, the NRAs shot well above 50 percent, with a peak of 160 percent in Germany in 1934. Overseas producers tried to prop up their export by setting up marketing boards or subsidized their farmers for the losses (e.g. the United States with the Agricultural Adjustment Act, one of the first measures of the New Deal). State intervention was not phased out after the war. Japan maintained the state monopoly in the rice trade (established in 1942) and in Europe the Common Agricultural Policy (formally enshrined in the Treaty of Rome of 1958 and implemented since 1962) resumed the key principle of French and German prewar policies. It set prices of agricultural products,

14 James Simpson, *Creating Wine: The Emergence of a World Industry, 1840–1914* (Princeton University Press, 2012).

15 Johan Swinnen, "The growth of agricultural protection in Europe in the 19th and 20th centuries," *World Economy* 32:11 (2009), 1499–1537.

which had to be equal (and very high) in all countries. As a result, the NRAs in the 1950s and 1960s come close to 100 percent in Japan, exceeded 50 percent in Europe, while they remained fairly low in exporting countries. The Latin American countries and the former colonies in Africa and Asia chased the dream of industrialization and used agriculture as a cash cow to finance it. They imposed heavy taxes on agriculture, set up marketing boards to control exports, and subsidized the urban consumption of food. The NRA was negative (i.e. domestic prices were lower than world market ones) in at least two-thirds of LDCs, and the average hovered around 10 percent, in spite of the presence of a small group of protectionist outliers, such as South Korea. Since the 1990s, state intervention has been slowly phased out, although not entirely. Poor countries liberalized their domestic markets and dismantled state-owned marketing boards, while advanced OECD ones switched from price setting and market intervention to directly subsidizing farmers. As a result, in the former, the NRAs declined sharply in the early years of the new millennium, although the OECD average remains high, as smaller European countries, such as Switzerland and Iceland, did not share the liberalizing zeal. In LDCs the average NRA, while still below zero in African countries, became positive in South America and especially Asia.

Economists reckon that state intervention is justified only when it can foster competition (not an issue in agriculture) or when it can redress some market failure. A case in point was arguably the low level of investment in R&D, as noted above. It seems impossible to defend policies aimed at augmenting prices of agricultural products above their world market level. They transferred income from consumers to producers, with a net loss for the consumers, which has been estimated to amount in the 1980s to about one-quarter of total transfers. Consumers did not complain too much, as food accounted for a very small share of their consumption. For the same reason, they did not rejoice that much at the liberalization of the 1990s, which reduced their losses by about two-thirds. The effects of policies on LDCs were the opposite: producers lost and urban consumers gained. The total effect for the world economy is very difficult to measure. There are some estimates of the effect of trade restrictions only, and they are quite impressive.<sup>16</sup> A complete liberalization of trade in agricultural products in the early 2000s, without modifying other support policies, would have

16 W. R. Cline, *Trade Policy and Global Poverty* (Washington: Institute for International Economics, 2004).

increased world GDP by about half a point, and the GDP of poor countries by about 1 to 1.5 percent.

### Conclusions: the challenges ahead

In spite of its past achievements, world agriculture faces a difficult task. The United Nations forecasts that by 2050 world population will range between a minimum of 7.4 billion and a maximum of 10.4 billion – that is, it will be 20 to 65 percent larger than at the beginning of the twenty-first century. On top of this, the increase in income is bound to shift demand towards fruits, vegetables, and, above all, dairy and meat, which require much more land than cereals per unit of calories produced. But, unfortunately, available land is scarce, and it is constantly reduced by urbanization. Some pastures can be transformed into cropland, but irrigating deserts would be prohibitively expensive and a massive deforestation would cause huge environmental and social problems. Scarcity of land is not the only problem. The modern varieties of seeds tend to lose their beneficial properties after a few years, and thus they have to be replaced with new ones, with a continuous investment in research. Last, but not least, peasants and other rural residents are moving to cities in greater numbers all over the world, so that agricultural manpower is bound to decrease in the future. Thus, the only solution to the problem of production increase seems to be a further increase in capital intensity and further technical progress. Unfortunately, modern techniques, although extremely efficient, damage the environment. Irrigation causes salinization or waterlogging (an accumulation of salts or water in the soil), which might make it unsuitable for cultivation, although the real extent of the problem is still controversial. Chemical products are harmful to farmers and to the whole population, as they pollute the environment and aquifers. The massive adoption of selected seeds and improved breeds threatens biodiversity and thus the stock of potentially useful varieties. The impact of genetically modified organisms is highly controversial.

To some extent, the needs of increasing production and of preserving the environment are in conflict. This conflict cannot be solved with a return to traditional agriculture, which, although environmentally more sustainable, would be unable to feed the current and projected world population. Developing efficient and environmentally sustainable techniques is the great challenge for the future of agriculture and of humankind.

## Further reading

- Anderson, Kym, Johanna Croser, Damiano Sandri, and Ernesto Valenzuela. "Agricultural distortion patterns since the 1950s: what needs explaining?" *Agricultural Distortions Working Paper* 90 (May 2009).
- Berry, R. Albert, and William R. Cline. *Agrarian Structure and Productivity in Developing Countries*. Baltimore, MD, and London: Johns Hopkins University Press, 1979.
- Cline, W. R. *Trade Policy and Global Poverty*. Washington: Institute for International Economics, 2004.
- De Soto, H. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. London and New York: Bantam Press, 2000.
- Engerman, Stanley, and Ken Sokoloff. "Factor endowment, institutions and differential paths of growth among New World economies." In Stephen Haber, ed., *How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico*. Stanford University Press, 1997, pp. 259–304.
- Federico, Giovanni. *Feeding the World: An Economic History of Agriculture, 1800–2000*. Princeton University Press, 2005.
- "The growth of world agricultural production, 1800–1938." *Research in Economic History* 22 (2004), 125–181.
- "The 'real' puzzle of share-cropping: why is it disappearing?" *Continuity and Change* 21 (2006), 261–285.
- Gardner, Bruce. *American Agriculture in the Twentieth Century: How It Flourished and What It Cost*. Cambridge, MA: Harvard University Press, 2002.
- Hayami, Yujiro, and Vernon Ruttan. *Agricultural Development: An International Perspective*, 2nd edn. Baltimore, MD, and London: Johns Hopkins University Press, 1985.
- Jorgensen, Hans. "The interwar land reforms in Estonia, Finland and Bulgaria: a comparative study." *Scandinavian Economic History Review* 54 (2006), 64–97.
- King, Russell. *Land Reform*. London: Bell and Sons, 1977.
- Kishimoto, Mio. "Property rights, land, and law in Imperial China." In Debin Ma and Jan Luiten van Zanden, eds., *Law and Long-term Economic Change: A Eurasian Perspective*. Stanford University Press, 2011, pp. 68–90.
- Lains, Pedro, and Vincente Pinilla. *Agriculture and Economic Development in Europe since 1870*. London and New York: Routledge, 2009.
- Larson, Donald, Rita Butzer, Yair Mundlak, and Al Crego. "A cross-country database for sector investment and capital." *World Bank Economic Review* 14 (2000), 371–391.
- Marshall, Alfred. *Principles of Economics*, 8th edn. London: Macmillan, 1920.
- Martin, Will, and Devashish Mitra. "Productivity growth and convergence in agriculture versus manufacturing." *Economic Development and Cultural Change* 49 (2001), 403–423.
- Nafziger, Steven. "Peasant communes and factor markets in late nineteenth-century Russia." *Explorations in Economic History* 47 (2010), 381–402.
- Olmstead, Alan, and Paul Rhode. *Creating Abundance: Biological Innovation and American Agricultural Development*. New York: Cambridge University Press, 2008.
- Pardey, Philip, Julian Alston, and Roland Piggot. *Agricultural R&D in the Developing World: Too Little, Too Late?* New York: IFPRI, 2006.



- Pomeranz, Kenneth. "Land markets in late imperial and republican China." *Continuity and Change* 23 (2008), 101–150.
- Simpson, James. *Creating Wine: The Emergence of a World Industry, 1840–1914*. Princeton University Press, 2012.
- Swinnen, Johan. "The growth of agricultural protection in Europe in the 19th and 20th centuries." *World Economy* 32:11 (2009), 1499–1537.
- Van der Eng, Pierre. *Agricultural Growth in Indonesia: Productivity Change and Policy Impact Since 1880*. London and Basingstoke: Macmillan, 1996.
- Van Zanden, J. L. "The first Green Revolution: the growth of production and productivity in European agriculture, 1870–1914." *Economic History Review* 44 (1991), 215–239.

## Global industrialization: a multipolar perspective

KAORU SUGIHARA

Why did global industrialization occur over the last two centuries? Beginning in England, the industrial revolution was first transmitted to continental Europe, the United States, and Japan in the long nineteenth century. During the period of interwar instability and after the Second World War, a variety of state-led industrialization programs, including socialist models, were implemented, which had varying degrees of success. In Asia, emphasis on capital-intensive, heavy industries (represented by steel and petrochemical plants and heavy machinery) was eventually replaced by or absorbed into the more labor-intensive industrialization, which was more employment-generating. This accelerated the global diffusion of industrialization. By the end of the twentieth century the majority of the world population lived in industrialized or rapidly industrializing countries, especially in Asia. Industrialization is now spreading to the rest of the world, though often not as fast or as smoothly as is desired. Is there any theory that can explain the timing, pace, and underlying causes of this process? This chapter suggests that the basic answer to this question lies in the ways in which the interaction between the environment, technology, and institutions successively released local and regional resource constraints in various parts of the world. It also speculates as to whether ongoing industrialization will be a threat to global environmental sustainability.

Before 1800, most agricultural societies in Asia and Europe developed a system of production and reproduction by accepting local resource constraints, imposed by nature.<sup>1</sup> Regional or long-distance trade only partially altered the fate of societies, although they were certainly shaped by some

<sup>1</sup> According to Angus Maddison's estimates, in 1820 about 66 percent of the world population lived in Asia, and 22 percent in Europe. Angus Maddison, "Statistics on world population, GDP and per capita GDP, 1–2008 A.D.," 2011, [www.ggdc.net/maddison/](http://www.ggdc.net/maddison/), uploaded 2011; accessed July 27, 2014.

developments coming from elsewhere, such as epidemics and violence. Societies often did not take advantage of knowledge coming from outside, unless enlightened rulers made this compatible with the technologies and institutions governing local and regional systems. Increases in the food supply and other means of subsistence led to growth in population rather than improvements in the standard of living, a situation economic historians have labeled the “Malthusian trap,” named for the English clergyman and political economist Thomas Malthus, who argued in 1798 that this would always be so. The Malthusian framework prevailed even in regions that saw a gradual but sustained expansion of the market in the early modern period, such as parts of Europe, the Ottoman domains, and East Asia, although at times population growth was checked through violent means, including war, forced expulsions, and infanticide.

In what ways was this Malthusian trap overcome? The traditional narrative has been one of a “European miracle”: technological breakthroughs occurred during the period from the scientific revolution to the industrial revolution, first in Britain and then in other parts of Europe, accompanied by institutional developments, especially the emergence of the nation state and a regime of private property rights, which created essential conditions for industrialization and economic growth.<sup>2</sup> Once agricultural productivity rose and coal became available in some places, major resource constraints such as a shortage of land and the danger of deforestation began to be significantly eased in some parts of Western Europe. Overseas expansion aided by the development of navigation and military technologies also helped ease regional resource constraints, through the imports of raw materials and food. Kenneth Pomeranz has called such a resource bonanza, in shorthand, “coal and North America.”<sup>3</sup>

However, this was a solution specific to Western Europe. The ways in which resource constraints were eased in the subsequent process of global industrialization differed region by region. The level of constraints in the United States and other regions of recent European settlement was much lower than that in Western Europe in some crucial measures, such as land and biomass stock. In East Asia, land was much more scarce relative to

2 Eric Lionel Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge University Press, 1981); Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (Oxford University Press, 1992); David S. Landes, *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor* (New York: Norton, 1999).

3 Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton University Press, 2000).

population, and people were fed, clothed, and organized quite differently, mainly through rice farming and associated proto-industry and social institutions. In the tropical parts of Asia, Africa, and Latin America, the frequency of epidemics and natural disasters, and problems with the availability of water, also meant the Western European path was strewn with additional obstacles.

This chapter discusses the basic mechanism of global industrialization with reference to how local resource constraints were eased through the introduction of modern technology and institutions in core regions of the world. It describes the experiences in the West, East Asia, and South Asia, and incorporates them into a tripolar perspective; in the future, with further research, the discussion could be extended into an even more multipolar one.

The adoption of a multipolar perspective implies a degree of departure from the existing literature. It involves explicitly reciprocal comparisons, rather than assuming the European experience as a yardstick, even though industrialization occurred there first.<sup>4</sup> Appropriate relationships between industrialization and the environment had to be established in each region, regardless of whether modern technology and institutions developed largely in that region, as in Europe, or came from outside.

Along with comparisons, this chapter develops a connective history, with an explicit recognition of interdependence. Since industrialization began, different paths of economic development in major world regions (such as Western Europe, East Asia, and South Asia) became much more closely connected with one another. Western impact was not a one-way process. Western traders, financiers, and steamships developed long-distance trade routes, but local and regional merchants handled a corresponding growth of local and regional trade. In all likelihood, Asian merchants handled the majority of regional trade in 1840, measured globally, as will be discussed in more detail below. Local and regional entrepreneurs also developed product and process innovations, which led, for example, to the introduction of modern manufacturing methods in the production of saris or kimonos and the invention of noodle-making machines. Western technology and institutions became a global influence, not because they were universally applicable, but because local and regional efforts neutralized their cultural and environmental specificity. In other words, the diffusion of industrialization was the result of multipolar agency.

4 Gareth Austin, "Reciprocal comparison and African history: tackling conceptual Eurocentrism in the study of Africa's economic past," *African Studies Review* 50:3 (2007), 1–28.

The chapter begins with a review of early modern European economic development from a reciprocal comparative perspective. It then characterizes the Asian path to industrialization, and suggests that East (and Southeast) Asia and South Asia developed different ways of easing local resource constraints over a long period of time, which underpinned their respective patterns of industrialization. It argues that Japan, and a little later East Asia, pursued a different, more labor-intensive, route to industrialization from the earlier Western, relatively capital-intensive one, at a time when most non-European countries were integrated into the West-dominated world economy as primary producers. The chapter then describes the process of the diffusion of industrialization and the interweaving of the various paths, and the final section briefly discusses the overall effects of these events on global environmental sustainability.

### The European path to industrialization<sup>5</sup>

According to Eric Jones and others, Europe as a region achieved a series of major technological and institutional innovations, worth calling the “European miracle,” between 1400 and 1800. Major innovations include the invention of large water-driven machines and steam engines that pumped water out of coal mines and then powered machinery and transport vehicles, the emergence of fiscal-military states that came to support industry through tax policies and tariffs, and overseas expansion that provided raw materials; these were accompanied by wars that encouraged new technology and shaped population movements. All of these accelerated economic change, first in what has come to be called “Smithian growth” – named for the Scottish political philosopher Adam Smith, who posited that economic growth came from an expansion of the market, which itself resulted from stable government, secure property right, a decrease in transport costs, and increased geographic specialization of labor – and then beyond it. The region also became better able to withstand environmental disasters than were other regions by developing both its transportation network and the capacity for the state to handle them.

A few comparative points may be added to these well-known observations. First, Europe was characterized by mixed farming, while this was less common

<sup>5</sup> This section is based on Kaoru Sugihara, “The European miracle in global history: an East Asian perspective,” in Maxine Berg, ed., *Writing the History of the Global: Challenges for the Twenty-first Century* (Oxford University Press, 2013), pp. 129–144.

in the rest of the world.<sup>6</sup> Mixed farming, a combination of crop production and livestock raising, is inherently more capital-intensive and extensive in its land use than was raising only crops and getting the few large animals one used from elsewhere. By contrast, typical East Asian rice farming was labor- and land-intensive – using little animal power, and getting such high yields per acre that turning land over to pasture was unthinkable – and was thus at the other extreme of this continuum. In its established European form, the mixed farming path was a sophisticated land-based combination of different production schedules, and resulted in a less densely populated landscape, a greater opportunity to deploy cattle for transport, and an economy more familiar with the concept of “fixed capital.”<sup>7</sup> From the perspective of the majority of the world’s population engaged in settled agriculture, the European pattern was biased towards a capital-intensive path.

Europe’s institutional development was dependent on this framework. Enclosure – the process through which fields and common lands were fenced off and transformed into pasture – helped make both land and labor available to capitalist agriculture, and accelerated capital accumulation. The development of capital markets lowered interest rates, which facilitated capital accumulation in the manufacturing and service sectors, as well as large-scale investment in infrastructure and war efforts. Frequent wars destabilized the countryside, so according to Rosenthal and Wong, much manufacturing located behind city walls, with fateful long-term results. In cities, food was typically more expensive than in the countryside, and thus labor was as well, as the majority of a laborer’s income was spent on food; capital, however, was cheaper than in the countryside. Moreover, European capital markets became integrated faster than labor markets, so local concentrations of demand for both of these factors of production pushed up the cost of capital less than they did the cost of labor. Both of these phenomena caused European industry to lean more towards developing capital- and skill-intensive industries than was the case elsewhere.<sup>8</sup> The high cost of labor also encouraged the development of labor-saving technology, compared to regions where the growth of the capital market

6 The institutional integration of pasture into arable crop production in Europe goes back to the Middle Ages at least. See B. H. Slicher van Bath, *The Agrarian History of Western Europe, A.D. 500–1850* (London: Edward Arnold, 1963), pp. 164–166, 178–179.

7 Hicks contrasts the fixed capital in modern industry with the circulating capital of merchants. John Hicks, *A Theory of Economic History* (Oxford: Clarendon Press, 1969), pp. 142–143.

8 Jean-Laurent Rosenthal and R. Bin Wong, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, MA: Harvard University Press, 2011), pp. 99–128.

was slow. These factors account for the favorable conditions for capital accumulation and the development of labor-saving technology. (Note that this is not a statement about relative rates of technological change, but about types of technological change.)

In some regions of Europe, a capital market did not develop, or labor-absorbing institutions developed better than capital-absorbing ones, which led to a strong element of the labor-intensive path similar to that of East Asia. In particular, proto-industrialization in continental Europe (as well as in some parts of England), which was substantially based in the peasant society, retained this tendency, and helped population growth through labor absorption. Geographical specialization and exchange occurred between fertile grain-producing regions and those that were either mountainous or of poor soil and engaged in pastoral husbandry. Over time, the former raised land productivity, earned a good surplus from grain sales, and tended to lose cottage industry, while the latter combined manufacturing with pastoral agriculture, and eventually began to produce manufactured goods for sale. Access to the sea, abundant natural harbors, large navigable rivers that are ice-free year round and seldom flood, and resources from the surrounding mountainous areas and forests, all helped the growth of trade. This “advanced organic economy,” as E. A. Wrigley has termed it, saw Smithian growth linked to the regional development of urban networks, the growth of consumer demand, and the development of a market economy.<sup>9</sup> It is important to remember, however, that this labor-intensive economy developed within the framework of mixed farming, which placed a greater emphasis on capital and the more extensive land use than East Asian agriculture did. Labor-intensive proto-industries in Europe were characteristically embedded in a regional economy more prone to the capital-intensive path than were their much larger counterparts in East Asia.

European regional economic development from 1500 to 1800 thus contained elements of both the capital-intensive and resource-intensive path and the labor-intensive and resource-saving path. The industrial revolution in England and subsequent European industrialization occurred not as a result of the former path alone, but as a fusion of the two paths.

On a second comparative point, resource endowments in Europe influenced technology choice in both directions as well. Releasing resource constraints

9 Franklin Mendels, “Proto-industrialization: the first phase of the industrialization process,” *Journal of Economic History* 32:1 (1972), 241–261; Jan de Vries, *European Urbanization, 1500–1800* (London: Routledge, 1984); E. Anthony Wrigley, *Continuity, Chance and Change: The Character of the Industrial Revolution in England* (Cambridge University Press, 1988).

through regional and long-distance trade helped resource-intensive technology develop, but the persistence of local resource constraints, especially when the competition from modern industry arrived, also encouraged the development of resource- and energy-saving technology. Wrigley emphasized, for example, that the local availability of coal was largely a matter of chance.<sup>10</sup> In early nineteenth-century England, the price of coal near coal fields was extremely cheap, and the price gap with other areas was significant enough to encourage the rapid development of coal-operated industries. The availability of coal may have been more important than the high wages enjoyed in England as an explanation for the English lead in industrialization.<sup>11</sup> As Allen and others have argued, however, early steam engines were so wasteful of energy that they only made economic sense where fuel was very cheap, and overland transport of fuels was difficult in early modern times. Timber was rarely worth shipping very far overland, because of its bulk; charcoal turned quickly to dust on bumpy pre-modern roads; and in China, for instance, the price of coal could quintuple between a pithead and a riverbank 50 kilometers away.<sup>12</sup> Thus the lack of coal in many areas led to persistent efforts to overcome this local resource constraint through the production of charcoal, or the use of resource- or energy-saving technologies, which ultimately contributed to the sustainability of the “European miracle.”

The resource issue also has the dimension of uncertainty. Once the international system of free trade and security was established in the nineteenth century, local resource constraints (especially immobile factors of production such as land and relatively immobile factors such as labor) would in theory have been mitigated by trade. However, weather, epidemics, and the threat of natural disasters remained important in determining the profile of local resource endowments. As Jones suggested, Western Europe had fewer natural disasters such as droughts and floods than did South Asia or most of East Asia.<sup>13</sup> This helped the accumulation of social overhead capital, such as buildings and roads, well before the industrial revolution raised labor productivity, while the rest of the world continued

10 Wrigley, *Continuity, Chance and Change*, pp. 114–115.

11 Robert C. Allen, *The British Industrial Revolution in Global Perspective* (Cambridge University Press, 2009), pp. 80–105.

12 Tim Wright, *Coal Mining in China's Economy and Society, 1895–1937* (Cambridge University Press, 1984), p. 9. See also Jan de Vries and Ad van der Woude, *The First Modern Economy: Success, Failure, and Perseverance of the Dutch Economy, 1500–1815* (Cambridge University Press, 1997), p. 37, on Europe: “Historically, the exploitation of energy deposits has depended more on the costs of transportation than on the costs of gathering the resource itself.”

13 Jones, *European Miracle*, pp. 22–41.



to suffer from the chronic destruction of infrastructure caused by monsoons, earthquakes, and fire. After 1850, Europe also developed better techniques of disaster management than did other regions, increasing this advantage. This might have biased Europe's technology path towards investment in physical rather than human capital. It might also have created an environment favorable to scientific experiments aimed at the use of motive power.

Wrigley's emphasis on contingency in the process of industrialization in England, and Pollard's similar emphasis in his study of industrialization in Europe, were steps toward an appreciation of the role resource endowments played.<sup>14</sup> Pomeranz's argument that "coal and North America" moved the direction of global technological development towards the capital- and resource-intensive path carried this analysis to the global level. Studies have thus examined local responses to contingencies in the geosphere, such as where coal was deposited. Others have examined the role that contingencies in the biosphere, such as access to forest resources and the threat of animal and human diseases, played in the long-term technological and institutional development path.<sup>15</sup> Building on the work of John Hajnal on the distinctive northwestern European marriage pattern – in which most men and women married late and many never married at all – some studies are also increasingly examining the role that contingencies in human society, such as age at marriage, family structures, the gender division of labor, and social norms, played in shaping industrialization in Europe, and a few of these are developing global comparisons.<sup>16</sup> More studies that identified European specificity in this way would allow a better understanding of the extent to which the European path (especially the English path) would have been "sustainable" without a resource bonanza, hence how far it diverged from the local

<sup>14</sup> Wrigley, *Continuity, Chance and Change*; Sidney Pollard, *Peaceful Conquest: The Industrialization of Europe, 1760–1970* (Oxford University Press, 1981), pp. 4–5, 120–121.

<sup>15</sup> On forest resources in Britain see Rolf Peter Sieferle, *The Subterranean Forest: Energy Systems and the Industrial Revolution* (Cambridge: White Horse Press, 2001); and in Germany, Joachim Radkau, *Wood: A History* (Cambridge: Polity Press, 2012), chapters 3 and 4. For references to other studies on the biosphere, see Chapter 2 in this volume Part 1 by J. R. McNeill, "Energy, population, and environmental change since 1750: entering the Anthropocene," and Chapter 2 in Volume 61, Part 1 of this series by Robert B. Marks, "'Exhausting the Earth': environment and history in the early modern world."

<sup>16</sup> John Hajnal, "European marriage patterns in perspective," in D. V. Glass and D. E. Eversley, eds., *Population in History: Essays in Historical Demography* (London: Arnold, 1965), pp. 101–143. More recent studies include Merry Wiesner-Hanks, *Women and Gender in Early Modern Europe*, 3rd edn (Cambridge University Press, 2007), Susan D. Amussen and Allyson M. Poska, "Restoring Miranda: gender and the limits of European patriarchy in the early modern Atlantic world," *Journal of Global History* 7:3 (November 2012), 342–363, and Giorgio Riello, *Cotton: The Fabric that Made the Modern World* (Cambridge University Press, 2013).

resource-constrained type of Smithian growth. In addition, the inclusion of the labor-intensive, resource- and energy-saving path as an essential element of the European miracle would broaden the research agenda, by making the comparison with the rest of the world easier, and in so doing by making the study of the European miracle more relevant to that of global industrialization.

### The Asian path to industrialization<sup>17</sup>

In describing postwar economic development up to c. 1980, Harry Oshima stressed the common socio-environmental characteristics of monsoon Asia, stretching from East and Southeast Asia to South Asia, in terms of seasonal rainfall patterns induced by monsoon winds and the centrality of the large delta for the growth of rice farming and dense population.<sup>18</sup> In some crucial respects the character of the Asian path originates from this unique environment, with differences between East Asia and South Asia.

The largest water and heat circulation system on earth is centered on the Himalayas. About 45 million years ago, part of Gondwana, roughly the present Indian subcontinent, moved northward, ultimately colliding with Asia. By about 10 million years ago the Himalayas and the Tibetan Plateau became sufficiently elevated to modify the original patterns of atmospheric and water circulation. In the summer, the southwesterly monsoon flows from the high-pressure area in the Indian Ocean to the low-pressure area on the Asian continent. This wind is partly blocked by the Himalayas, resulting in intense precipitation to the south of the Himalayas. In winter, the north-easterly monsoon, flowing from the high-pressure area on the continent to the low-pressure area in the Indian Ocean, prevails. Again, part of this wind is blocked by the Himalayas, and it brings dry weather to the south. This flow,

17 This section is mainly based on Kaoru Sugihara, "The East Asian path of economic development: a long-term perspective," in Giovanni Arrighi, Takeshi Hamashita, and Mark Selden, eds., *The Resurgence of East Asia: 500, 150 and 50 Year Perspectives* (London: Routledge, 2003), pp. 78–123; Sugihara, "Minami Ajiagata Keizai Hatten Keiro no Tokushitu" ("The nature of the South Asian path of economic development"), *Minami Ajia Kenkyu* 22 (2010), 170–184; Sugihara, "Labour-intensive industrialization in global history: an interpretation of East Asian experiences," in Gareth Austin and Kaoru Sugihara, eds., *Labour-intensive Industrialization in Global History* (London: Routledge, 2013), pp. 20–64.

18 Harry T. Oshima, *Economic Development in Monsoon Asia: A Comparative Study* (University of Tokyo Press, 1987). Although his research was focused on postwar Asia, Oshima linked Asia's large population to the desirability for labor-intensive industrialization, and advocated the development of labor-intensive technology. He was active in ESCAP and ILO.

with seasonal rainfall patterns, provided large regions surrounding the Himalayas and the Tibetan Plateau with a common environmental feature. Meanwhile, much of East Asia and parts of Southeast Asia are located between the Tibetan Plateau and the Pacific Ocean. Here the air flow and rainfall patterns reinforce the exchange between the high mountain range and the sea, although its geographical coverage and impact are just as spectacular as they are in India. Added to this rainfall was the large amount of water and silt carried by big rivers flowing from the "Great Himalayan Watershed," and land with rich soil suitable for growing crops emerged across a large part of the Asian land mass, especially at the mouths of rivers.<sup>19</sup>

Since the agricultural revolution over ten thousand years ago, monsoon Asia probably played a crucial role in the growth of the world's population. Rice farming was important from the early stages of settled agriculture and, with other water-intensive crops and associated stocks of knowledge, agricultural technology was gradually extended northward.<sup>20</sup> Several civilizations emerged in East, Southeast, and South Asia, with loose cultural and economic commonalities in each region. The availability of water was a primary determinant in the diffusion. It also affected the Malthusian relationship between population and food in a particular way. Land with rich soil had to be accompanied by an appropriate supply of water in order to qualify as a main factor of production, while the supply of safe water mattered for sustaining a population. Both of these were major constraints, although the classical political economists in industrializing Britain did not seriously consider them when discussing the main factors of production or determinants of population growth.

The ways in which these constraints were dealt with differed region by region. In East Asia, which is largely located in the temperate zone and is land scarce, water determined local stability and the extent of economic development in areas with fewer resources, including many parts of inland China. In the core regions with a stable water supply, however, keen attention was paid to intensification to raise land productivity. In South Asia, by contrast, located in the tropical or semi-tropical zone and relatively land abundant, greater attention was paid to controlling water, especially its large annual and seasonal variability. Only during the nineteenth century, as population grew

19 For the relevance of the "Great Himalayan Watershed" to current international political and economic relations, especially between China and South Asia, see Kenneth Pomeranz, "The great Himalayan watershed: agrarian crisis, mega-dams and the environment," *New Left Review* 58 (2009), 5–39.

20 Lynda Shaffer, "Southernization," *Journal of World History* 5:1 (1994), 1–21.

and arable land began to be exhausted, did securing food, water, and energy become especially hard, but water shortages, floods, epidemics, and deforestation were critical issues in earlier periods as well. The caste system broadly defined social codes and occupational divisions, while a sophisticated system developed for the management of water in agriculture, with various tasks assigned to each section of the village community.<sup>21</sup>

In 1700, around 27 percent of world population lived in South Asia and 23 percent in East Asia, while Western Europe's share was only 13 percent.<sup>22</sup> While these are only estimates, it seems reasonable to assume that East and South Asia had quite an unusual capacity to hold a large population by the standards of the early modern period. The populations of both regions grew further, and provided the most important factor endowment characteristic relevant to industrialization in the long nineteenth century.

In East Asia, the peasant family economy developed as a distinctive multi-occupational one, especially in the Lower Yangtze Delta in the seventeenth and the eighteenth centuries but also in Tokugawa Japan. Traditionally, the reason why production by peasants on small plots prevailed in this region has been attributed to land scarcity. Labor absorption was easiest and most effective if the family became a production (thus labor allocation) and distribution (thus consumption and saving) unit, as well as a reproduction unit. A small plot of land was worth taking good care of as if it were a garden, as hard and careful work brought the peasant household a steady (if small) reward. A variety of labor-intensive technologies such as double cropping (of rice or rice with cotton, sugar, wheat, or mulberry trees), seed selection (partly to even out labor demand), the use of manure, the control of water, and the development of agricultural tools emerged as a result. As Ester Boserup noted long ago, population growth in Asia led to land intensification.<sup>23</sup>

Members of the household combined agricultural work with proto-industrial work, such as spinning and weaving, often at home, regardless of whether they belonged to an owner-cultivator household or a tenant one. Thus labor was absorbed, and the number of working days per year per household increased. The main workers were usually family members rather than agricultural laborers, although they did exchange and hire labor in busy

21 For examples, see David Mosse, with assistance from M. Sivan, *The Rule of Water: Statecraft, Ecology, and Collective Action in South India* (Oxford University Press, 2003).

22 Maddison, "Statistics on world population."

23 Ester Boserup, *The Conditions of Agricultural Growth: The Economics of Agrarian Change under Population Pressure* (London: George Allen & Unwin, 1965).

seasons, and, especially in Japan, co-operate for the maintenance and welfare of the village community. On the whole, these features were common in the core regions of China and Japan, in spite of the fact that the structure of the family, the nature of social institutions, taxation, and the degree of the development of the land market were very different. This is the “industrious revolution path,” with an extensive use of family labor and the in-house combination of rice farming and proto-industry, and was an East Asian reply to the Malthusian trap.<sup>24</sup>

This labor-intensive agriculture shaped the Asian path to industrialization. Although efforts in the mid-nineteenth century tended to attempt a direct transfer of Western technology and institutions, by the 1880s the Japanese government had developed a different industrialization strategy. Recognizing that both land and capital were scarce while labor was abundant and of relatively good quality, the new strategy was to encourage active use of the tradition of labor-intensive technology, along with modernization of traditional industry, and the conscious adaptation of Western technology to different conditions of factor endowment. The path Japan developed can be termed “labor-intensive industrialization,” as it absorbed and utilized labor more fully and depended less on the replacement of labor by machinery and capital than did the West. Some traditional industries not only survived but expanded. For example, the hand-weaving industry sustained large employment through the use of machine-reeled yarn, contributing to the development of an Asian international market for mass consumer goods by combining the efficiency of machine-spinning with traditional techniques of weaving and clothing patterns.

An important factor in Japan’s industrialization in the late nineteenth century was that it had labor of high quality, trained in the peasant household.<sup>25</sup> Japan was also relatively resource rich with the exception of the amount of arable land. Not only was the available land of good quality, but Japan had plenty of wood (hence paper), precious metals, and sand iron. It also exported coal and timber at the initial stage of industrialization. After the 1920s, however, Japan faced a comprehensive shortage of food and the raw materials needed for the development of modern industries. The development of strategically important heavy industries (steel, chemicals, railroads, shipbuilding) as well as light ones such as cotton textiles and

24 See Kaoru Sugihara and R. Bin Wong, “Industrious revolutions in early modern world history,” Chapter 12 in Volume v1 Part 2 of this series.

25 For elaboration see Sugihara, “Labour-intensive industrialization.”

sundries led to a particularly vicious cycle. Such industries required secure access to resources (oil, for instance) that Japan did not have, but building a military that might be able to gain such access required precisely those resources; it also worsened relations with more powerful nations and empires that did have those resources, increasing the pressure to expand the military. Meanwhile, because Japan's heavy industry was not globally competitive (such capital-intensive industries gained little from Japan's low labor costs) they tended to rely on government contracts, and become advocates for expanding the military, with which they formed close ties.

While Japan developed heavy industries, its agricultural labor productivity remained low. Nevertheless, Japanese rice technology made progress in the 1920s, especially in the development of new seed varieties. The nature of technology was intensive, technically driven, and directed towards standardization; small irrigation pumps came to be widely used. In the 1960s this Japanese technology made an important contribution to the "Green Revolution" in Asia, an example of the way that sharing common responses to the environment of monsoon Asia helped Asia's rapid economic growth. Under the Cold War regime, the United States began to engage in rice research in an attempt to raise crop output in Southeast Asia as part of its Asia policy, and adopted Japanese technology through international organizations such as the International Rice Research Institute (in Manila). This had a significant impact on the nature and quality of current Asian rice agriculture, and the direction of its technological development.<sup>26</sup>

The net result was that the East Asian agricultural path was directed towards releasing the constraint of the shortage of land, not only through labor absorption and the improvement of the quality of labor, but also through the intensification of land use through the development of agricultural technology without a heavy use of other resources. Nevertheless, with a full absorption of industrialization underpinned by Western technology and institutions, the region entered into a fundamentally new resource regime in the second half of the twentieth century. Regional resource use is now largely determined by global market forces, under which local and regional resource regimes operate. The burden of ensuring that resource transfers are

26 Koji Tanaka, "Seizonkiban Jizokugata Hatten Keiro o Motomete: 'Ajia Inasakuken' no Keiken kara" ("In search of the humanosphere-sustainable development path: lessons from the experience of 'the Asian rice farming area'"), in Kaoru Sugihara, Kohei Wakimura, Koichi Fujita, and Akio Tanabe, eds., *Koza Seizon Kiban-ron*, Vol. 1: *Rekishi no nakano Nettai Seizonken: Ontai Paradaimu o Koete (Lectures on Humanosphere, Vol. 1: The Tropical Humanosphere in Global History: Beyond the Temperate Zone Paradigm)* (Kyoto: Kyoto Daigaku Gakujutsu Shuppankai, 2012), pp. 185–213.

compatible with environmental sustainability at local and regional levels falls into the hands of local, national, and regional initiatives.

Turning to South Asia, the main issue was the scarcity of land of good quality, especially land with a stable water supply. Land may have been abundant, but under the monsoon climate where there was a very short period of heavy rain, the number of days farmers could work in a year was limited. This may have induced the development of labor-intensive technology as labor was available in off-peak seasons for an even longer period than for temperate zone farmers, whose off-peak labor was instrumental for proto-industrialization in Europe and East Asia. Labor absorption of this kind does not appear to have taken place on as large a scale as expected, however, partly due to occupational divisions resulting in part from the caste system, but also because there was a rather large employment in the tertiary sector. In addition, obtaining water and biomass energy for cooking, heating, and lighting purposes were extremely time and energy consuming activities, especially for women, leaving them little time for other work.<sup>27</sup>

Even so, labor-intensive technology took root in colonial India in the form of both land intensification and the development of labor-intensive industries. In the rice crop regions of south India, labor-intensive technology similar to East Asia's, such as double cropping and the use of manure, was employed by the late nineteenth century (though not, as in East Asia, far earlier than that), although overall land productivity remained low.<sup>28</sup> (It remained low by international comparison throughout the twentieth century.) Labor-intensive handicrafts and work by skilled artisans probably declined in relative importance in the economy in the nineteenth century as a result of competition from European products, but experienced a revival and improved productivity in the early twentieth century. Modern, mechanized factories also grew in this period, though they employed relatively more labor per unit of capital than did their foreign counterparts, and faced competition, especially from Japan. Other traditional industries such as the production of gold thread, brassware, leather, and shawls also survived and expanded. Under the impact of steamships, railways, and construction of ports and paved roads, the domestic market expanded, and a range of other modern industries for domestic consumption emerged, including food processing such as rice milling and the production of

27 Sugihara, "Nature of the South Asian path."

28 Haruka Yanagisawa, *A Century of Change: Caste and Irrigated Lands in Tamilnadu 1860s–1970s* (New Delhi: Manohar, 1996).



sundries such as matches. Cultural, geographical, and environmental diversities offered domestic merchants and producers special business opportunities. Exposed to international competition, labor-intensive industrialization occurred with scale and depth in colonial India.<sup>29</sup>

After independence, India opted for political and economic autonomy and import-substitution industrialization. While it allowed for the development of capital- and resource-intensive industries, labor-intensive industries were largely isolated from international competition, which resulted in a “dualistic” economy with a modern sector that did little to promote development in the rest of the economy. After 1991, tariff protection and labor laws began to be removed, and India entered into international competition again. The Green Revolution and the improvement of rural–urban communication networks (especially transport and information) lifted local resource constraints to some extent. At the same time, control of resources became a more complex issue, as greater use of electricity affected the level of groundwater tables, and operations of multinational companies created conflicts with local society over pollution.

To sum up, the rural capacity to hold a vast population for a long time has been a common feature of East and South Asia, but the timing and pace of industrialization were different, reflecting differences in resource endowment and policy reinforcement. Elsewhere I have argued that if the European miracle was a miracle of production, the East Asian miracle was a miracle of distribution, as the rise in income of Asian peoples (mainly through labor-intensive industrialization) halted the worsening gap in global income distribution, which had been set in the nineteenth century and continued in the first half of the twentieth century.<sup>30</sup> In order to extend the framework for investigating mechanisms of global industrialization further, however, the social capacity to maintain a large population within the context of local resource constraints must be considered. In South Asia, famines were overcome by the end of the colonial period and infant mortality is falling, though slowly. Although most people still have a low

29 Tirthankar Roy, *Rethinking Economic Change in India: Labour and Livelihood* (London: Routledge, 2005). See also Roy, “Acceptance of innovations in early twentieth century Indian weaving,” *Economic History Review* 55:3 (2002), 507–532, and “Labour-intensity and industrialization in colonial India,” in Gareth Austin and Kaoru Sugihara, eds., *Labour-intensive Industrialization in Global History* (London: Routledge, 2013), pp. 107–121; Takashi Oishi, “Indo-Japan cooperative ventures in match manufacturing in India: Muslim merchant networks in and beyond the Bengal Bay region, 1900–1930,” *International Journal of Asian Studies* 1:1 (2004), 49–85; Yanagisawa, *Century of Change*.

30 Sugihara, “East Asian path,” p. 116.



standard of living by comparison with fully industrialized countries, ordinary people, including Dalits, are participating not only in industrialization, but also in democratic politics, and their upward mobility is visible. The last few centuries of South Asian history thus represent a miracle of reproduction.

All three miracles – production, distribution, and reproduction – have been responsible for altering the Malthusian relationship between population and food at the time of industrialization, or, if I can diverge from the framework of the classical political economist, the relationship between industrialization and the environment. I will return to the implications of this relationship in the final section of this chapter, but now wish to examine ways in which the different paths of economic development became connected and interdependent.

### Diffusions and interconnections of industrialization<sup>31</sup>

Between 1750 and 1840 an overwhelming proportion of world non-agricultural production was unmechanized, and was located in Asia, especially in China and India (Fig. 4.1). Even in 1840 the impact of mechanized industries was limited; in industrializing Europe half of textile production was still unmechanized. By 1910, however, the world market of textiles was dominated by the modern English cotton textile industry. The decline of traditional industries, especially cotton textile industry in India (and to a lesser extent in China), was a serious global event that involved a loss of employment on an unprecedented scale.<sup>32</sup> Asia's share of world GDP declined from 60 percent in 1820 to 25 percent in 1913, while that of Western Europe rose from 20 percent to 31 percent, and North America from 2 percent to 20 percent.<sup>33</sup> This mainly reflected the widening gap in real wages between Asia and the West, although the growth of GDP in North America reflected the rapid growth in the immigrant population as well. Asia became an importer of English textiles and an exporter of tea,

<sup>31</sup> This section is based on Sugihara, "Labour-intensive industrialization," and "Sekai Boeki-shi ni okeru 'Choki no 19-seiki'" ("The 'long nineteenth century' in the history of world trade"), *Shakai Keizai Shigaku* 79:3 (2013), 3–28.

<sup>32</sup> A. K. Bagchi, "De-industrialization in India in the nineteenth century: some theoretical implications," *Journal of Development Studies* 12:2 (1976), 135–164; Roy, *Rethinking Economic Change in India*, pp. 106–115.

<sup>33</sup> Maddison, "Statistics on world population."

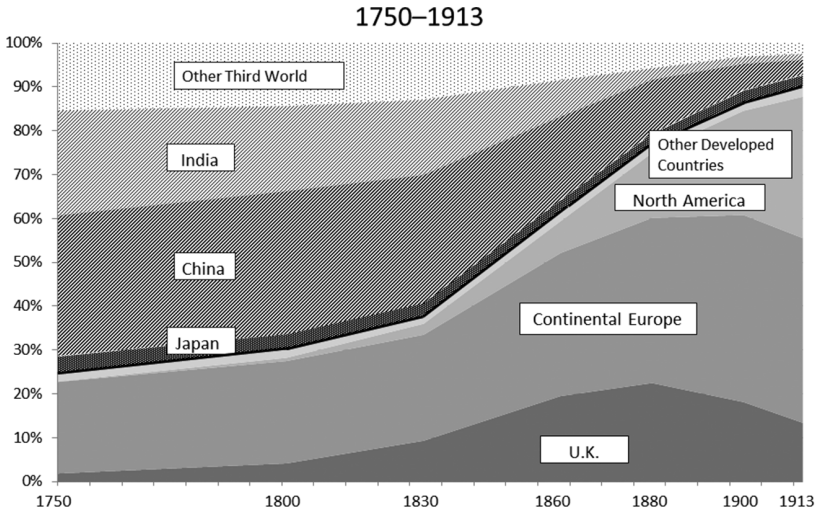


Figure 4.1 Geographical composition of world industrial production, 1750–1913

rice, sugar, tin, rubber, raw cotton, raw silk, raw jute, and wheat. Thus an international division of labor emerged between industrialized Western countries as exporters of manufactured goods, and Asian countries (though, for the most part, not East Asian ones) as exporters of primary products. The environmental implication of this division of labor was the transfer of (mainly land-derived) natural resources from the latter to the former, in exchange for the improvement of transport, urbanization, and mass-produced consumer goods. Industrialization in this context has typically been portrayed as an agent of both resource exploitation and the diffusion of modern science and technology.

However, Asia's response to Western impact also contained another feature, namely labor-intensive industrialization, as discussed above. Asia was not just de-industrialized, but was also reorganized into a new form of industrialization. Thus there were two different routes of the diffusion of industrialization, the capital-intensive route originating in the West, and the labor-intensive one originating in East Asia. The latter also tended to be less resource-intensive than the former. Thus what actually emerged in the period from the nineteenth century to the 1930s was a three-tier international division of labor – capital-intensive manufactured goods, labor-intensive

manufactured goods, and primary products – and an increasingly uneven global resource allocation in favor of Europe and regions of recent European settlement.

The growth of the Atlantic economy represents the main global route to industrialization in terms of leading technological and institutional developments. Countries in continental Europe, especially Germany, Belgium, and France, and some regions of recent European settlement outside Europe, achieved industrialization by learning (or stealing) new technology and/or by importing capital, labor, and machinery with their export earnings. In the New World, the integration of vast natural resources into the international economy served as the engine of economic growth. Labor was scarce and land was abundant, and the difference in factor endowments between the Old and the New World induced a growth of trade, migration, and investment. In the nineteenth and early twentieth centuries, the growth of the Atlantic economy was prominent in long-distance trade. An implication of this development was that the regions of recent European settlement had a better incentive than did Britain to raise labor productivity, using abundant natural resources and employing imported capital. The movement towards the development of labor-saving, capital-intensive, and resource-intensive technology was most clearly observed in the United States.<sup>34</sup> In Latin America and the Caribbean, political leaders and ambitious entrepreneurs also sought to promote industry, but with less success. They could not compete with cheaper European or US imports, and the governments were rarely powerful enough to enforce high tariffs like those that had protected US industries as these were getting started. European and US governments acted to impose a free-trade regime in order to keep markets open for their own industrial products and ensure a steady inflow of raw materials and agricultural commodities from other nations. Entrepreneurs and officials in Russia, Egypt, Persia, and the Ottoman Empire similarly advocated industrial development, but this remained modest in scale.

The American land frontier was exhausted around 1890, and by the early 1920s migration from Europe ceased to be encouraged. But American forest and mineral resources continued to be plentiful, and American technology, designed for a resource-abundant, labor-scarce society, continued to lead

<sup>34</sup> For the significance of different factor endowments behind different institutions within the Americas, see Stanley Engerman and Kenneth Sokoloff, *Economic Development in the Americas since 1500: Endowments and Institutions* (Cambridge University Press, 2011).

the world. The need to save skilled labor led to the standardization of industrial production, such as the usage of transferable parts, which in turn facilitated the transfer of technology across industries and the development of mass production, as well as a “de-skilling” of labor. Industrialization became associated with the exploitation of economies of scale. Labor productivity was also raised through automation, the introduction of more systematic labor management, and mass marketing. Looking back from the twenty-first century, the British industrial revolution only began to show the explosive power of labor-saving technology through the use of coal and steam engines, and merely paved the way for a fuller replacement of skilled labor by capital and technology. Therefore, although the conditions for the industrial revolution may have been laid in Europe, the “Western path,” with emphasis on capital-intensive and resource-intensive technology, arguably only became fully established as a result of the growth of the Atlantic economy.

As far as the direction of technology and institutions is concerned, the Soviet model of a “big push” resembled the American one, in so far as it was capital- and resource-intensive. In this model, an emphasis on heavy and chemical industries, and on high-technology sectors backed by the state, was quite explicit. Heavy industries were particularly important for warfare, which was an additional reason for states (whether capitalist or socialist) with large military ambitions or anxieties to emphasize it. Although some of these industrialization strategies were successful, many socialist economies eventually failed to foster internationally competitive industries.<sup>35</sup>

Just as resource-intensive industrialization spread, so did labor-intensive industrialization. While this was not exclusive to Asia by any means – rural French women making lace that was added to factory-produced cloth is just one of many examples within Europe of capital- and labor-intensive industries developing in tandem – East Asia was particularly marked by the expansion of labor-intensive kinds of manufacturing within a world shaped by mechanization. The comparative advantage of labor-intensive industries in Asia was reinforced by the growth of a gap in real wages between the Atlantic high-wage economy and the non-European low-wage economies. Restrictive migration laws in the United States and other regions of recent European settlement helped this gap persist. As a largely unintended

35 Robert C. Allen, *Farm to Factory: A Reinterpretation of the Soviet Industrial Revolution* (Princeton University Press, 2003).

consequence, it progressively became easier for Japan, the first industrial nation in Asia, to compete with Western manufacturers in the international market of labor-intensive manufactured goods where wage differences mattered. The difference between the structure of consumption in Asia and the West was another important factor that made it possible for Asia to industrialize itself. Thus industries of Asia and Europe developed, each with their separate niches.

Under the free trade regime imposed on East Asia by Western Europe and the United States from the mid-nineteenth century until the Second World War, labor-intensive industrialization constituted the core of Asia's development path, and the expansion of its trade served as an engine of regional industrialization. The rate of growth of intra-Asian trade between 1880 and 1938 was faster than that of Asia's trade with the West or world trade, as the division of labor between agriculture and industry grew at local and regional levels, and merchant networks exploited slight differences in the price and quality of commodities, including manufactured goods. Thus, like the Japanese hand-weavers mentioned above, Chinese hand-weavers used Indian, and later Japanese, machine-made yarn before the modern Chinese spinning industry provided this to them. A substantial proportion of Japanese yarn by this time was made from Indian raw cotton. Thus there developed a competitive international commodity chain within Asia.<sup>36</sup> Since labor was abundant in most of Asia, industrializers had to have a competitive labor, that is, cheap labor relative to efficiency. The effort to improve the quality of labor was an important feature of Japan's industrialization, while intra-Asian trade, organized by Chinese and Indian merchant networks, was a main mechanism through which massive employment was maintained and the quality of labor was tested. Yet intra-regional trade was also crucially dependent on the purchasing power generated by Asia's primary product exports to the West, such as rubber, tin, and tea, and on communications technology such as telegraphs and steamships, commercial institutions such as new kinds of banking and insurance, and relatively open markets contributed to and/or imposed by the West.

Thus one of the most significant (and largely unintended) contributions of the growth of world trade was labor absorption in Asia through both long-distance and intra-regional trade. Figure 4.2 shows that long-distance trade in

36 Kaoru Sugihara, *Ajiakan Boeki no Keisei to Kozo (Patterns and Development of Intra-Asian Trade)* (Kyoto: Mineruva Shobo, 1996), and Sugihara, "Introduction," in Sugihara, ed., *Japan, China, and the Growth of the Asian International Economy, 1850–1949* (Oxford University Press, 2005), pp. 1–19.

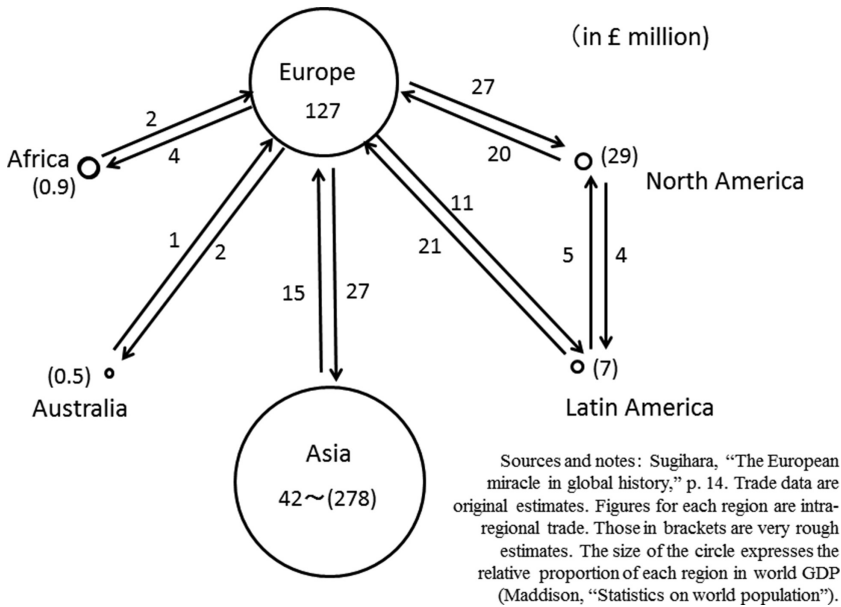


Figure 4.2 Structure of world trade, 1840

1840 was centered on Western Europe, while there were very large regional trade blocs in both Europe and Asia. One of the reasons why the figures here for intra-Asian trade (especially rough figures) are so large, is that they include all intra-Asian trade, regardless of whether these are indigenous commodities or imported foreign goods. Thus, if English textiles were brought to Bombay or Singapore, and then were redistributed by Indian or Chinese merchants within India or Southeast Asia, they would count as intra-Asian trade. Unless English textiles were consumed within Bombay or Singapore, therefore, most imported goods are counted again as part of regional trade. This is appropriate, in my view, as most of the time English or European traders were unable to penetrate into the interior or smaller markets of Asia, and were dependent on the initiatives of Asian merchants for the maintenance of their long-distance trade. The same points can be made with regard to much of Asia's exports to the West: peasant producers in the hinterland were most likely to deal with local or Asian merchants, who would in turn sell their produce to Western merchants at large ports. Behind the strength of Asian merchants were their extensive local and regional networks, which were contextualized in their languages, under the influence of their cultures and social institutions.

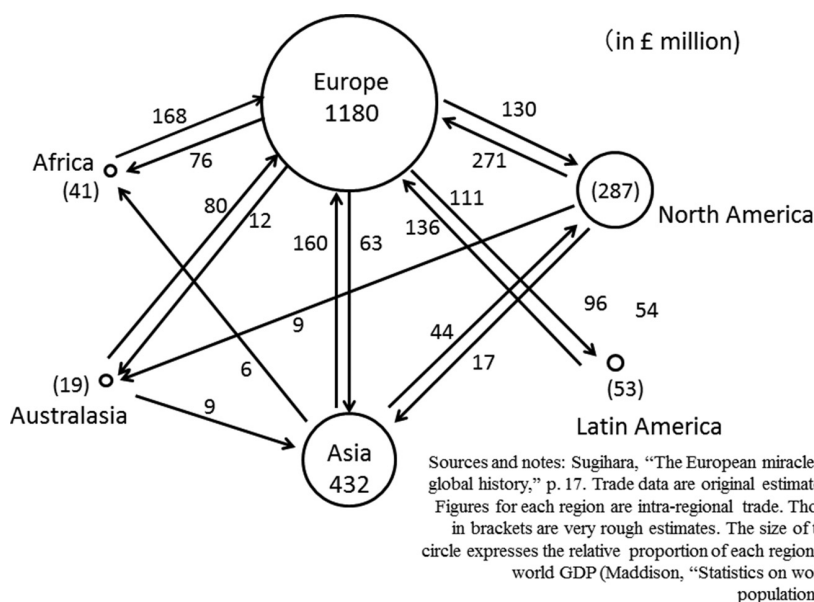


Figure 4.3 Structure of world trade, 1910

By 1910 the structure of world trade became much more multilateral (Fig. 4.3). The United States became an important participant in world trade, while many primary producers in Latin America, parts of Asia (such as the Middle East), and Africa were integrated into the trade structure as satellites of the metropolitan economy. Nevertheless the growth of intra-Asian trade continued, largely fueled by labor-intensive industrialization in India, Japan, and China. The world economy of the nineteenth century was thus not being pulled entirely by the dynamics of the Atlantic economy, as some have argued.

Other models of economic development may also not have been as common as once thought. One of these was the development of the "enclave economies": that is, poles of intense local development which were (often deliberately) isolated from the larger society surrounding them, and so had no stimulatory effect on them. Certain colonial mines and plantations, in which foreign owners imported capital equipment, slaves, or fixed-term contract labor from elsewhere, provided walled-off living quarters for managers who consumed mostly imports, exported their output, and reinvested most of the profits back home, provide the classic model of such "enclave economies." These resulted in "dualistic" economies with a very small



modern sector that might even obstruct development in the rest of the economy by keeping desirable resources off limits to the rest of the society, and providing financial support to powerholders who thus lacked incentives to do much for the rest of society. How often colonial or post-colonial investments have resulted in a situation approximating this model remains controversial, however. Clearly it did happen in some cases, but probably less often than radical and nationalist critics have claimed. The long nineteenth century is best characterized as a period when Western powers (and the newly developed regions) and Asia (and the tropical regions to which Asian workers emigrated) simultaneously developed high-wage and low-wage economies.<sup>37</sup> The former used more resources, while the latter fed more people. Uneven allocation of resources underpinned two different paths to industrialization. Together, they fueled and sustained the expansion of the world economy.

An important consequence of the emergence of the three-tier international division of labor was that both capital-intensive industrialization and labor-intensive industrialization needed the suppliers of primary products. There was a transfer of natural resources from primary producers to industrial countries, especially to those pursuing capital- and resource-intensive industrialization. But those pursuing labor-intensive industrialization also exploited natural resources from other parts of Asia and beyond, and could not have proceeded without taking advantage of (largely colonial) exploitation.

Labor-intensive industrialization continued to spread during the twentieth century. During the interwar period it was more systematically extended to China and Korea, largely through Japanese imperialism.<sup>38</sup> By 1938, intra-Asian trade, by then dominated by the Yen bloc, was the second largest area of intra-regional trade, next to the intra-European one, consisting of 9 percent of world trade. After 1945, in spite of the disruptions caused by the war, the growth of the international competitiveness of East Asia's labor-intensive industries continued. By the early 1950s, Japan regained its position as the world's largest exporter of cotton textiles, and was replaced by China in the

37 For a similar formulation, see W. Arthur Lewis, *Growth and Fluctuations, 1870–1913* (London: George Allen & Unwin, 1978), especially pp. 194–224; for criticism see Sugihara, “Labour-intensive industrialization,” pp. 21, 22, 27.

38 Kaname Akamatsu, “A historical pattern of economic growth in developing countries,” *Developing Economies* 1:1 (1962), 3–25; Takeshi Abe, “The Chinese market for Japanese cotton textile goods, 1914–30,” in Sugihara, ed., *Japan, China and the Growth of the Asian International Economy*, pp. 73–100.



early 1970s. The chain of development of labor-intensive industries across other Asian countries was impressive, becoming what Japanese economic historians have called the “flying geese pattern of economic development,” a phrase which comes from the characteristic V-shaped formation of flocks of flying geese. Japan, in this metaphor, was the lead goose, passing on more labor-intensive, less lucrative industries to other places; when the wages then rose in these places, they in turn passed on the industries to places where wages were still low. This pattern started with the NIEs (Newly Industrializing Economies of South Korea, Taiwan, Hong Kong and Singapore), spread on to ASEAN (the initial four were Thailand, Malaysia, Indonesia, and the Philippines), China, and India, and by now has reached many other countries, including those with the lowest levels of per capita income. China, which after the communist revolution of 1949 withdrew from international trade, came to be fully integrated into the Asia-Pacific economy by the 1980s, and became the most competitive exporter of labor-intensive manufacture in the world, as well as the growth core of Asian economies. By the 1990s, India also changed its economic policy towards a more open regime. While the effects of this chain of diffusion cannot be seen as comparable to those of the West in a number of other respects (such as technological and financial leadership with powerful impacts on the international political and military order), it was significant in terms of the creation of global manufacturing employment. In fact, the majority of the world’s industrial population today is employed in those sectors primarily influenced by this kind of development.

One of the prerequisites for the “Asian miracle” in the second half of the twentieth century was the regime of free trade, which underpinned a rapid growth of both Asia’s trade with the United States (and other developed countries) and intra-Asian trade. Resource trade was an important component of this growth, that is, Asian countries traded their resources in exchange for manufactured goods they could not produce, and vice versa. This became possible in part because of political change: as Japan became an ally rather than a geopolitical competitor of the United States, it could count on US guarantees of access to key resources and markets abroad without needing to build up its own military. Thus, in spite of economic nationalism, Asia’s growth economies participated in regional and global resource dynamics.

It is important to note that the spread of labor-absorbing forms of industry, though impressive, has not come close to absorbing all the people who are available for non-agricultural labor around the world. Over the course of the

twentieth century, the average productivity of manufacturing workers has converged to a significant degree – that is, the productivity of people employed in manufacturing in poor countries is closer to the productivity of their counterparts in rich countries than it was a century ago. But with the admittedly huge exception of East Asia, per capita incomes have not converged significantly – in large part because labor productivity in agriculture and services in rich and poor countries have not converged, and large numbers of people in poorer countries lack productive full-time employment. How many of these people can ultimately be made better off by the processes described here remains an open question.

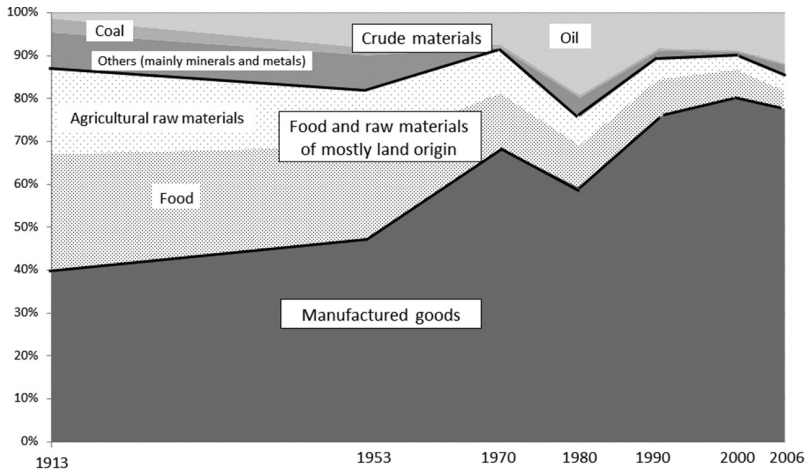
Moreover, both types of industrialization – capital-intensive and labor-intensive – needed, and continue to need, primary producers who provide them with more and more resources. Thus the three-tier structure, outlined above, became the main pattern of the international division of labor, in which resource transfers act as a central mechanism for easing local resource constraints for all industrializations, and modern infrastructure and transport sustain competitiveness. But the more manufacturing industries of all types spread throughout the world, the greater the demand for resources, with greater consequences for the environment.

### Implications for global environmental sustainability

As was suggested at the beginning, population growth up to around 1800 did not cause major problems of environmental sustainability, if this is defined in terms of nature being governed by the forces of the geosphere (in which energy and material flows are determined by natural processes) or the biosphere (in which the ecosystem and food chains function by incorporating human interventions rather than vice versa). Humans depended for their food on their own labor on arable land, and Malthusian or Boserupian dynamics were at work. Meanwhile, they depended for their energy on (mainly forest-derived) biomass, as well as on human and animal muscle, water, and wind. Burning biomass was the basic technology for heating and lighting, as well as for clearing the land. But energy consumption per capita increased very slowly, while population growth was yet to reach the point of exhausting the land frontier in most parts of the world.

A massive increase of the use of fossil fuels (especially coal and oil) since the industrial revolution fundamentally altered the relative importance of the geosphere and biosphere, as the balance between geosphere-derived

## Global industrialization: a multipolar perspective



Sources and notes: Paul Lamartine Yates, *Forty Years of Foreign Trade: A Statistical Handbook with Special Reference to Primary Products and Under-developed Countries* (London: Allen & Unwin, 1959), pp. 63, 104, 123, 149; *UN International Trade Statistics Yearbook*, 1974, 1994, 2006. Figures are from Special Tables. SITC codes changed from original (1913 and 1953 attempt to approximate it) to revised (1974) to R2 (1980 and 1990) to R3 (2000 and 2006), but a rough trend at this level of categorization can be discerned.

Figure 4.4 Commodity composition of world trade, 1913–2006

and biosphere-derived energy sources changed dramatically. Today, the commercial value of land- and forest-derived products in world trade is much less important than that of fossil fuels. Figure 4.4 shows that their proportions declined during the second half of the twentieth century. The value of manufactured goods increased most rapidly, but they too are increasingly made from fossil fuels. Biomass remains an important source of fuel in developing countries, where it is often vital to the livelihood of the local community, but in global terms is much less valued today than it was two centuries ago. In this respect the world economy has become much less organic. It has also become much more urbanized and globally connected through man-made materials, transport, and infrastructure. The main agent of this change was global industrialization. The land frontier was exhausted, and population growth became increasingly dependent on modern industry and services. The long-standing relationship between humans and the biosphere, which had been the basic mechanism of sustaining the local population, was broken, and was replaced by an invisible web of contacts through trade and technological and institutional transfers without a recognized method of evaluating their environmental consequences.

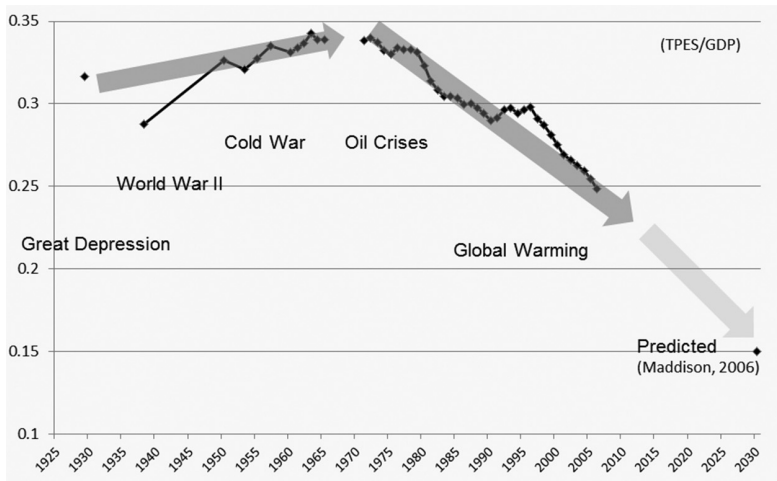
Thus the course of human society diverged significantly from the previous pattern of human–nature interface. The impact of fossil fuels on the structure of the world economy was so great that the direct interactions between human society and the biosphere have become rather peripheral to global resource and energy security issues as we see them today.

This divergence has not been a linear, inevitable course of human history, however. When Japan, China, and other parts of East (and Southeast) Asia industrialized a century or more later than Western Europe did, the region created a labor-intensive path to industrialization on a regional scale. By and large the region depended for its energy on biomass much more than Western Europe did during industrialization. It also had a tendency to choose relatively less energy-intensive industries and energy-saving technology. For example, despite industrialization, the overall energy intensity (measured by total primary energy supply divided by GDP) of the Japanese economy remained low. In addition, the development of energy-saving technology began in the 1920s and was actively pursued, especially in the 1950s.<sup>39</sup> The energy intensity of other Asian countries (except for socialist ones) was also low. Thus the East Asian path retained distinct ways of employing resources, and accompanying technological and institutional characteristics. In the postwar period, however, East Asia has also become (like Europe before it) a major importer of food, fuel, timber, and other primary products from other parts of the globe, and a major driver of climate change. Its per capita contribution to the latter process remains much smaller than that of the West, but China in particular is now the world's largest single emitter of greenhouse gases.

Prior to the two oil crises of the 1970s, heavy and chemical industrialization, with military industry leading the energy-intensive technology, made the level of energy intensity of leading powers (the United States and the Soviet Union) very high, while many countries under the labor-intensive path kept the level steady. However, there was a remarkable convergence after the 1970s, through the reduction of intensity of the United States and Western Europe, as well as of China, and eventually of the (former) Soviet Union.<sup>40</sup> The traditional distinction between capital-intensive industrialization and

39 Satoru Kobori, *Nihon no Enerugi Kakumei: Shigen Shokoku no Kingendai (The Energy Revolution in Japan: The Modern and Contemporary History of a Resource-poor Country)* (Nagoya: Nagoya Daigaku Shuppankai, 2010).

40 Kaoru Sugihara, "Kaseki Shigen Sekai Keizai no Koryu to Baiomasu Shakai no Saihen" ("The emergence of a fossil-fuel-based world economy and the reorganization of the biomass society"), in Sugihara et al., *Lectures on Humanosphere*, pp. 149–184.



Sources and notes: TPES: Joel Darmstadter, *Energy in the World Economy: A Statistical Review of Trends in Output, Trade, and Consumption since 1825* (Baltimore: Johns Hopkins University Press, 1971), and International Energy Agency, *Energy Balances of OECD Countries and Energy Balances of Non-OECD Countries*. GDP: Maddison, "Statistics on world population." Energy efficiency refers to total primary energy supply in oil equivalent per GDP. Until about 1990 TPES data did not include non-commercial energy (traditional biomass).

Figure 4.5 World energy intensity, 1925–2030

labor-intensive industrialization became skewed to some extent, as the focus on energy-saving technology began to dictate the direction of global technological innovation.

It is therefore possible to suggest that the global industrialization path has begun to shift from the energy-intensive to the energy-saving one (Fig. 4.5). Looking back from some time in the future, the last two centuries of the energy-intensive industrialization path might eventually be seen as a great divergence from the more balanced, environmentally sustainable path. I wish to suggest that not only the former, but also the latter path began in the European miracle, survived the Great Divergence largely because it was countered by the East Asian path, and is eventually becoming a global path. If we wish to see a further continuation of global industrialization, perhaps we need to learn from all of the three miracles – the European miracle of production, the East Asian miracle of distribution, and the South Asian miracle of reproduction.

The story of energy intensity is only part of a larger narrative of the establishment of a global environmentally sustainable path, however. By now, resource transfers have become the main vehicle of global industrialization. Resource policies at local and regional levels, as well as at a global level, must include efforts to change in the relative importance between

geosphere-derived and biosphere-derived (and “clean”) energy sources; a fuller respect for the logics of geosphere and biosphere in which the development of science and technology are directed more clearly towards sustainability concerns, including water management; and the reorganization of human society in accordance with sustainability needs demanded by nature. When such a perspective is established and its implementation is in sight, industrialization might come to be accepted as a truly positive agent of global history.

### Further reading

- Akamatsu, Kaname. “A historical pattern of economic growth in developing countries.” *Developing Economies* 1:1 (1962), 3–25.
- Allen, Robert C. *The British Industrial Revolution in Global Perspective*. Cambridge University Press, 2009.
- Farm to Factory: A Reinterpretation of the Soviet Industrial Revolution*. Princeton University Press, 2003.
- Austin, Gareth. “The developmental state and labour-intensive industrialization: ‘late development’ reconsidered.” *Economic History of the Developing Regions* 25:1 (2010), 51–74.
- Austin, Gareth, and Kaoru Sugihara, eds. *Labour-intensive Industrialization in Global History*. London: Routledge, 2013.
- Bagchi, A. K. “De-industrialization in India in the nineteenth century: some theoretical implications.” *Journal of Development Studies* 12:2 (1976), 135–164.
- Bairoch, Paul. “International industrialization levels from 1750 to 1980.” *Journal of European Economic History* 11:2 (1982), 269–333.
- Boserup, Ester. *The Conditions of Agricultural Growth: The Economics of Agrarian Change under Population Pressure*. London: George Allen & Unwin, 1965.
- de Vries, Jan. *European Urbanization, 1500–1800*. London: Routledge, 1984.
- The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present*. Cambridge University Press, 2008.
- Engerman, Stanley, and Kenneth Sokoloff. *Economic Development in the Americas since 1500: Endowments and Institutions*. Cambridge University Press, 2011.
- Jones, Eric Lionel. *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia*. Cambridge University Press, 1981.
- Lewis, W. Arthur. *Growth and Fluctuations, 1870–1913*. London: George Allen & Unwin, 1978.
- Maddison, Angus. “Statistics on world population, GDP and per capita GDP, 1–2008 A.D.,” 2011. [www.ggdc.net/maddison/](http://www.ggdc.net/maddison/), accessed May 27, 2011.
- Mendels, Franklin. “Proto-industrialization: the first phase of the industrialization process.” *Journal of Economic History* 32:1 (1972), 241–261.
- Mokyr, Joel. *The Gifts of Athena: Historical Origins of the Knowledge Economy*. Princeton University Press, 2004.

- The Lever of Riches: Technological Creativity and Economic Progress*. Oxford University Press, 1992.
- O'Rourke, Kevin, and Jeffrey Williamson. *Globalization and History: The Evolution of a Nineteenth-century Atlantic Economy*. Cambridge, MA: MIT Press, 2001.
- Pollard, Sidney. *Peaceful Conquest: The Industrialization of Europe, 1760–1970*. Oxford University Press, 1981.
- Pomeranz, Kenneth. *The Great Divergence: China, Europe, and the Making of the Modern World Economy*. Princeton University Press, 2000.
- Rosenthal, Jean-Laurent, and R. Bin Wong. *Before and Beyond Divergence: The Politics of Economic Change in China and Europe*. Cambridge, MA: Harvard University Press, 2011.
- Roy, Tirthankar. *India in the World Economy: From Antiquity to the Present*. Cambridge University Press, 2012.
- Slicher van Bath, B. H. *The Agrarian History of Western Europe, A.D. 500–1850*. London: Edward Arnold, 1963.
- Sugihara, Kaoru. "The East Asian path of economic development: a long-term perspective." In Giovanni Arrighi, Takeshi Hamashita, and Mark Selden, eds., *The Resurgence of East Asia: 500, 150 and 50 Year Perspectives*. London: Routledge, 2003, pp. 78–123.
- "The European miracle in global history: an East Asian perspective." In Maxine Berg, ed., *Writing the History of the Global: Challenges for the Twenty-first Century*. Oxford University Press, 2013, pp. 129–144.
- Sugihara, Kaoru, ed. *Japan, China, and the Growth of the Asian International Economy, 1850–1949*. Oxford University Press, 2005.

## The history of world technology, 1750–present

PAUL JOSEPHSON

Technological change accelerated with the Industrial Revolution and extended to all processes on all continents from smelting and mining to power production, to transportation, agriculture, and housing, and to communications. It has often been connected to military innovation. It involved the effort to replicate, standardize, and mass-produce techniques and processes. Its impact reached materials as well, from non-ferrous metals to building materials and plastics. Technological change reflected growing interconnectedness between processes; for example, that in the chemical industry connected with dyes leading to innovations in medicine and materials (plastics, for example). The increasingly industrial and large-scale technologies were not individual components or machines, but also systems – business, financial, construction, and state institutions, as well as armies of laborers whose tasks were routinized as they were de-skilled. This tendency held in the twentieth century across capitalist, socialist, and fascist states. Another feature of the history of technology was the increasingly formal relationship between industry and research and development; industrial firms and state governments supported R&D in new, large-scale laboratories connected with business, public health, and military innovation.

This chapter focuses on the United States, Europe, and the former Soviet Union because these nations have been the major engines of technological change since the 1750s for economic reasons (the rise of the factory and modern corporation and the determination of businesspeople and entrepreneurs to tap technology for increased production and profit); political reasons (the centrality of technology to ideological, public health, and those very economic reasons); military concerns (and not only the development of new weapons based on industrial processes); and the competition between these states for resources and power.



## The Industrial Revolution: from human labor to engine power

The Industrial Revolution was not one revolution, but a series of revolutions in production, power generation, and distribution. It occurred first in Britain and on the European continent, then in the Americas and Asia, all roughly in the period 1770–1900. The first industries to be affected were textiles, iron and steel, and mining, especially coal. In production, handicraft gave way to machine production. In textiles, the flying shuttle, spinning jenny, water and steam power enabled rapid increases in production of yarn, while canals and railroads facilitated delivery of raw materials and sale of finished cloth. In steel, the Bessemer process permitted inexpensive mass production and removal of impurities in iron by oxidation. Production grew cheaper, faster, and more efficient, which put many craftsmen out of work, forcing them to seek employment in mills, and triggered rapid urbanization. Another issue of labor is the fact that mechanization and the expansion of handwork were frequently complementary. Thus, mechanized cotton ginning, spinning, and weaving greatly increased demand for cotton, and more people than ever worked picking it until that began to mechanize a century and a half later; steam engines pumped water from mines, while for several generations, the number of people swinging picks, shoveling, and pushing wheelbarrows to the surface increased. Exploitative child labor was a final feature of the Industrial Revolution.

A crucial aspect of the Industrial Revolution, tied to the others, was the rise of steam power (in the late nineteenth and twentieth centuries augmented by electrical energy, the internal combustion engine, and eventually large-scale hydroelectricity, and nuclear power). Millers, farmers, town residents, merchants, and others have tapped water for agriculture, drinking, sewerage, and to power mills for millennia. Now water powered the steam engine. The Scotsman James Watt introduced major improvements to the steam engine including high-pressure steam in pistons and a reciprocating engine. The engines served burgeoning factories and mills, and later powered boats, ships, and the railroad (Fig. 5.1). Eventually, with boilers that powered turbines and power lines, businesses, homes, and cities gained electricity, followed by rural regions from the 1930s onward.

In the early nineteenth century the American system of manufacturing based on interchangeable parts and the use of machine tools to produce them developed. This system grew out of the efforts of Federal armories and their contractors to provide guns more inexpensively. Its principles contributed to

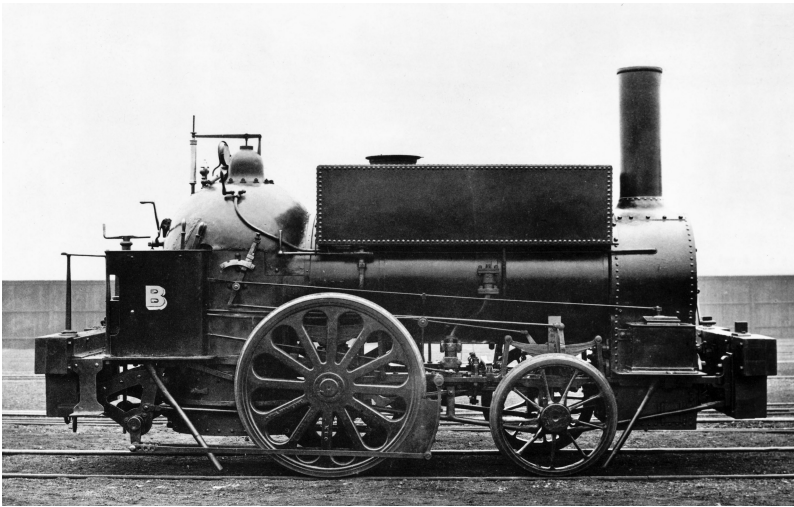


Figure 5.1 Early steam locomotive associated with London & North Western Railway (Science & Society Picture Library / SSPL / Getty Images)

the industrial manufacture of bicycles, sewing machines, typewriters, and eventually automobiles. The American system spread throughout the world in the effort to use semi-skilled labor and machine tools that cut, shaped, extruded, and ground metal to produce standardized, identical interchangeable parts.

Eventually this gave rise to the assembly line with division of labor among a variety of tasks, and by the late twentieth century became routine in cheap labor production of textiles, shoes, and foods in Asia and Africa. Because of success in mass-producing automobiles along an assembly line at Henry Ford's River Rouge, Michigan, factory, assembly line mass production is often called the Fordist system. The assembly line resulted in extensive deskilling of the labor force since everything was built through machines operated by semi-skilled workers. Henry Ford, a patriarchal conservative and anti-Semite, ordered a private police force to keep an eye on his workers. At the same time he recognized the need for a market for his mass-produced Model T automobiles; he doubled the salary of many of his workers in 1914 to US\$5 per day. This increased purchasing power among the workers, stimulated greater demand for Fords, contributed to the rise of the middle class in America, and led many workers to migrate to Detroit, Michigan, and other northern cities. But many workers buckled under Ford's paternalistic scrutiny of their private lives and the hard work in the factory (Fig. 5.2).

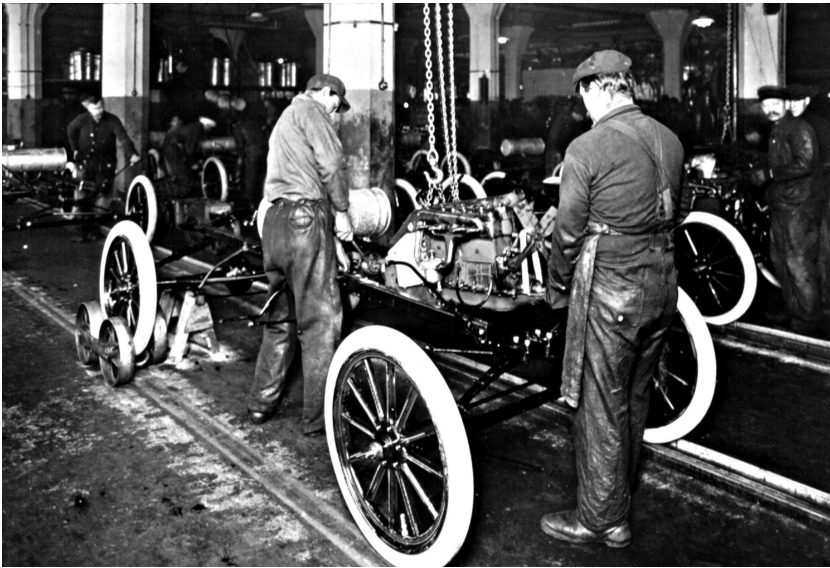


Figure 5.2 Ford Motor Company in the early 1900s, showing the assembly line (Everett Collection Historical/Alamy)

### Social and political concern about technological change

The changes in production methods brought social upheaval. Among economists there is some dispute about whether wages increased, since generally speaking the standard of living of workers improved during the course of the Industrial Revolution. But at least initially, because workers were no longer self-sufficient as they had been on farms, they lived in poverty and they feared the noisy, powerful new machines and mills. Wages were low enough that children were forced to join their parents in mills and mines and suffered the consequences of poor health, disability, and death. In many countries, average human height declined, suggesting pervasive malnutrition. On the other hand, population grew quite rapidly. This led Thomas Malthus and others to suggest that soon there would be too many mouths to feed as numbers of people grew faster than food supply. Many wealthy individuals suggested that poor laws and other social programs intended to alleviate poverty in fact encouraged the poor to reproduce since they did not feel the full brunt of their behavior and put further strains on government and society. Historians have had their differences over the social consequences of the Industrial Revolution, particularly its impacts upon living standards. The closest to a

consensus they have come is the proposition that for the working classes, early stages of industrialization, whether in Britain or elsewhere, typically brought deterioration of living standards, but that after a generation or two that trend changes direction.

Most individuals take for granted that technologies improve the quality of life by achieving efficiencies of production. However, a number of voices have challenged the view of uncorrupted technology or technology as somehow commensurate with progress – and the belief that “progress” always and everywhere is good. Many farmers, craftsmen, and other individuals protested against industrialization which endangered their livelihoods. In England in the early nineteenth century, the followers of the perhaps legendary Ned Ludd gathered in mobs with farm implements to destroy mills that had put them out of work. Luddism had a significant literary resonance as well. Persons with an anti-technological world view are called Luddites.

Another group of critics views technology almost as an autonomous force that shapes human institutions. These technological determinists include Jacques Ellul and Langdon Winner. Others criticize large-scale technologies as undemocratic and exploitative, but see small-scale systems and simple technologies as reasonable; they embrace a view that “small is beautiful,” or that there is some kind of alternative technology (for example, Ernst “Fritz” Schumacher or Peter Harper). They prefer composting, drip irrigation using greywater, solar panels, and wind generators to nuclear reactors and gas-guzzling vehicles. These technologies are decentralized, labor, not capital intensive, energy efficient, and locally controlled.

Karl Marx and Friedrich Engels also criticized technology’s effects, but not technology *per se*. Specifically they criticized its concentration as capital in the hands of the owners of the means of production, the bourgeoisie. In their works they railed against the poverty of the proletariat and in particular the alienation of the worker from the products of his labor. While claiming their historical analysis of class struggle between worker and manager, laborer and owner was “scientific,” they advanced the notion of the inevitable rise of utopian society in which workers owned the means of production and in which technology – the productive forces (factories, machinery, equipment, tools) – was organized to create a society of plenty where labor was no longer exploitative toil. In other words, modern technology would be a force of liberation in socialist or communist society. In this way, their views of technology were determinist since technology served as the engine of history. In any event, such Marxist leaders as Vladimir Lenin and Joseph Stalin in the Soviet Union, Mao Zedong in

China, and Kim Il Sung in North Korea sought to create such free societies through technology.

These Marxist leaders underestimated the way in which large-scale technological systems had a significant impact on workers' lives and de-skilled them wherever they toiled – under socialism or capitalism. Stalin, for example, determined to copy the Gary, Indiana, steel mills. Founded in 1906, Gary grew to five mills, twelve blast furnaces and forty-seven steel furnaces, plus an excavated harbor to facilitate delivery and shipment of ore and steel. Gary attracted 16,000 laborers, many of them immigrants, in its first three years, and had a combined labor force of 100,000 at its peak. Stalin determined to copy these mills at Magnitogorsk in the Urals region of the USSR. The failure of the Magnitogorsk mills to operate as intended, the conflicts between workers and Communist Party officials, and the squalor, cold, and hunger under which the workers toiled indicated that large-scale technological systems will nearly always be exploitative no matter the political and economic system.

### Interdependence of technology, science, and industry: chemistry

One of the most important aspects of the history of technology was the growing connection between industrial research and development where industries supported industrial research. In 1856 in England William Henry Perkin, who was trying to synthesize quinine from coal tar, first produced dyes from coal-tar chemicals and built a factory based on his methods. German chemists quickly took the lead in the synthesis of a large number of bright-colored dyes and in production, in 1865, for example, founding BASF, famous especially for its indigo, although the first colors were not colorfast and faded. BASF expanded its chemical research department – and its facilities generally, including housing for workers – and within fifteen years had sales offices abroad from New York to Moscow. They built on a well-established railroad industry, a burgeoning textile industry, and extensive use of bleaches. The increase in demand for natural dyes accompanied the expansion of the textile industry; synthesis of dyes answered this demand and also triggered development of other chemical processes. An active patent office assisted in the expansion of BASF. Synthesis of dyes also led chemists to synthesize substances that turned out to have medical applications.

The German industry left that in England and in particular in the United States behind, in the latter where industrial chemistry lagged, although by the

turn of the twentieth century a series of factories had arisen on the Hudson River in New York state. During the First World War German factories turned to the manufacture of explosives and a blockade prevented trade of German dyes, which triggered rapid expansion of the US industry. During the 1920s, a German chemical industry conglomerate, I. G. Farben, was formed out of those firms that had worked closely during the war.

In addition, during the nineteenth century, industrial firms recognized the importance of underwriting scientific and engineering research. A number of them established quasi-independent laboratories and employed specialists to develop new processes and products with significant market advantages. They included I. E. DuPont de Nemours Company, Westinghouse Electric, the Radio Corporation of America, Bell Laboratories of Bell Telephone, Siemens, and I. G. Farben. During the National Socialist (Nazi) period, I. G. Farben directors worked closely with the Nazi leadership and knowingly provided Zyklon B, a cyanide-based pesticide, to the regime which was used to gas to death millions of Jews in concentration camps during the Holocaust. A number of its executives were tried for war crimes at the Nuremberg Trials, with several executed. But most of them served only short prison terms.

Perhaps the most far-reaching development was the creation of polymers (very large molecules) or plastics, lightweight materials that could be easily molded and shaped, and replaced ivory, tortoiseshell, and linen. At the 1862 International Exhibition in London, Alexander Parkes revealed a material called Parkesine, an organic material derived from cellulose that once heated could be molded, and retained its shape when cooled. Celluloid followed although it was not strong enough for many applications but is known as the foundation of the film industry. The most significant invention was Bakelite, developed by Leo Hendrik Baekeland in 1907, which found uses as electrical insulators, casings, kitchenware, jewelry, piping, and other applications because it molded quickly; it was recognized in 1993 by the American Chemical Society as the world's first synthetic plastic (Fig. 5.3).

Most developments in plastics have occurred since 1910. In the 1930s polyvinyl chloride (PVC), low density polyethylene, and polystyrene were developed. The Second World War stimulated further search for new materials as substitutes for those materials in short supply (e.g. rubber). These materials competed with wood, paper, metal, glass, and leather. In clothing, nylon, a substitute for silk, found application as parachutes, ropes, helmets, and in clothing; plexiglass replaced glass; plastic replaced wood in furniture.





Figure 5.3 Bakelite radio  
(Interfoto / Alamy)

Plastics are encountered everywhere every day now in toys, computers, clothing, furniture and carpets, appliances, building materials (e.g. PVC), and medical applications. A significant drawback is that many plastics, while readily disposable, do not biodegrade, and recycling for these materials has limited effect. The Great Pacific Ocean Garbage Patch – floating, churning pieces of plastic at hundreds of thousands of square kilometers – indicates the extent of this critical problem. Another problem is that Bisphenol (BPA) and other additives in plastic may leach out of the plastics into our food, water, and bodies and are likely endocrine disrupters; in addition, a number of them may be carcinogenic.

Float or plate glass, another result of the marriage of chemistry and technology, dates to the early nineteenth century, and grew out of industrial processes and innovations connected with automation, metallurgy, and plastics. In 1848 Henry Bessemer built a system of rollers to produce a continuous ribbon of flat glass which, by the 1920s, with the addition of polishers and grinders, cut production costs considerably. By the 1950s the process had been fully automated. The Crystal Palace (1851), a cast iron and plate glass building in Hyde Park, London, England, at 564 meters long and 39 meters tall, demonstrated the potential of plate glass. Other important innovations included wired cast glass for extra strength and security.

Such consumer-oriented glass applications as industrial bottling of soda drinks and beer developed in the late nineteenth century. Automobile glass gave great impetus to innovation, too. In the early twentieth century, builders employed glass in horseless carriages to protect drivers from wind and debris, but it was standard glass and did not offer full protection, especially in an accident where the glass shattered. Chemists developed shatter-resistant, laminated, and then tempered and tinted safety glass that became standard in the 1920s and 1930s. In the 1960s and 1970s automobile manufacturers added a thin layer of polyvinyl butyral between two layers of glass. Since by 2010 there were more than 1 billion automobiles in the world, with 240 million in the United States alone, this is a vast quantity of glass – not to mention plastics in the interior as seats, molding, insulation, dashboard, and so on.

### River engineering and hydroelectricity

Putting rivers to work was important in the early Industrial Revolution. Subsequently, harnessing them more fully became a technological hallmark of modern societies. After the early nineteenth century, under the lead of French, American, and other engineers, the efforts to sculpt river basins for economic, political, and military purposes accelerated and expanded greatly in scale. No longer content to erect dams across rivers, the engineers proposed straightening and dredging them, building huge reservoirs, and storing water for power generation, flood control, and irrigation. The control of rivers across national, state, and provincial boundaries required brute force political machinations to overcome local opposition to external control of water, and in the twentieth century, as dams grew bigger, generated great controversy as millions of people were ousted (“oustees”) from traditional homes and lifestyles in floodplains to make way for large-scale projects to transform the rivers into powerful machines. The modern dams also affected fisheries and forestry operations, the former by interrupting the migration of anadromous fish, changing water chemistry and temperature, and destroying habitat, and the latter by precluding the spring float of lumber downstream from foresting yards to mills.

In the nineteenth century, engineers advanced projects with hubris and certainty, while in fact many of their efforts moved forward on seat-of-the-pants calculations and, as in all engineering work, trial and error. But because of the scale of projects, they inevitably destroyed ecosystems – intentionally or otherwise – and often created more problems than existed in the first



place. One of the most heavily studied of these efforts – but repeated in Egypt, India, Brazil, the USSR, China, and other settings into the twenty-first century – concerns the engineering of the Mississippi River to prevent flooding by the US Army Corps of Engineers. Huge areas of irrigation and other water management projects grew from the Ganges and Indus Rivers in India and Pakistan and along the Nile River in Egypt. India began hydroelectric projects in the late 1890s under British rule. By 2010, independent India produced tens of thousands of megawatts of electricity from hydropower stations built since the 1960s – and had ousted millions of people from river basins. Many of the facilities failed to meet their hydroelectric goals because they silt up more rapidly than originally expected, block the downstream flow of nutrient laden silt to river deltas and fisheries, and increase salt water infiltration of these same deltas. They also have been less effective at flood control than predicted.

For example, engineers were convinced that a “channeled” Mississippi would scour the river bottom, digging a deeper channel, and carry away flood waters safely downstream. Instead, water during floods had nowhere to go, pouring over levees into farmland and towns that had been overbuilt in floodplains, like a funnel overwhelmed by an impatient cook. More efforts at improvement followed as engineers gained bigger budgets, but in the process made floods more frequent. In 1927 the Mississippi flooded massively, killing hundreds of people, inundating ten states, covering 70,000 square kilometers, and reaching 97 kilometers in width below Memphis, Tennessee.

Engineering knowledge spread from American, Soviet, and French specialists, both as part of foreign policy efforts and as an international engineering community promoted technological transfer. Soviet engineers trained Egyptian and Indian specialists and provided foreign aid, for example, for the Aswan Dam in Egypt in the 1960s. Chinese specialists who promoted and completed the Three Gorges Dam on the Yangtze River were trained at the Zhukhidroproekt Construction and Design Trust, itself a kind of Soviet Army Corp of Engineers firm with roots in building dams and canals in the 1930s for Joseph Stalin’s gulag system. The project’s first adherents had received training from the US Bureau of Reclamation before Mao and the communists seized power. German specialists also contributed to hydroelectricity abroad.

The Three Gorges Dam is the world’s largest at 20,500 megawatts with thirty-two main turbines (Fig. 5.4). Touted for flood control, power generation, and irrigation, the dam destroyed archaeological and cultural sites, destroyed local and regional ecology, and ousted 1.3 million people.

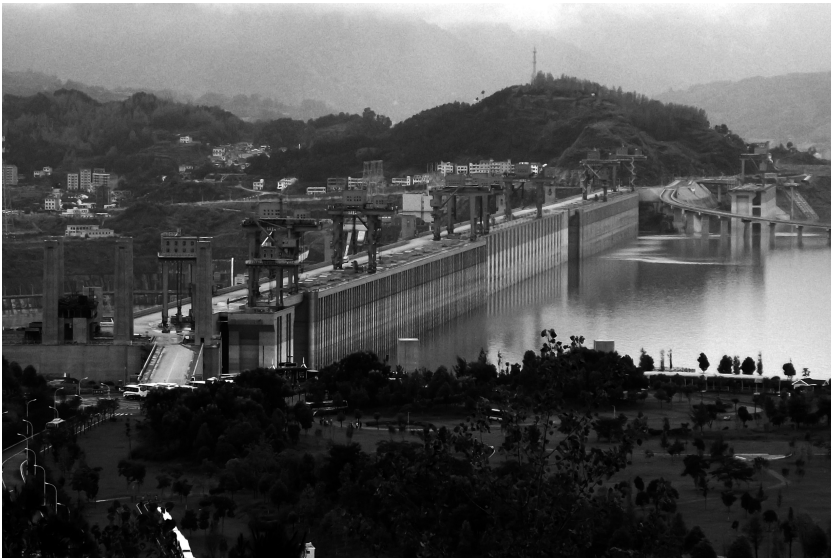


Figure 5.4 Three Gorges Dam  
(Top Photo Corporation/Alamy)

Another massive project, the Itaipu Hydroelectric Power Station shared between Brazil and Paraguay, drowned the Guaira Falls, the world's largest by volume. Composer Philip Glass wrote a cantata, "Itaipu," in honor of the structure.

Brazilian engineers both developed their own visions of hydroelectric grandeur in the first half of the twentieth century and after 1945 also worked with American engineers from the Tennessee Valley Authority (TVA) to advance larger projects. TVA specialists, who had begun ambitious transformation of the American South in the 1930s to bring electricity, modern appliances, fertilizers, and communications technologies to the poorest Americans in a self-proclaimed effort to promote democracy, exported their expertise to such rivers as the São Francisco in Brazil in part to establish an engineering bulwark against the spread of communism.

Another form of hydrological engineering is irrigation. Many irrigation projects date to the colonial era. Australia, the driest inhabited continent, advanced massive irrigation projects with the assistance of engineers from the United States (California), who had themselves gained training from British engineers, at the turn of the nineteenth century around the time of independence from Great Britain. Irrigation, segregation, and later apartheid were joined in South Africa. With almost the entire cultivated area receiving

irrigation, India's Punjab system dates to 1849, although a series of more extensive projects followed independence. French engineers attempted to bring water control to the Mekong Delta and colonial Vietnam. At the turn of the twenty-first century, Vietnam and other Southeast Asian nations have begun to tame the Mekong River delta with scores of hydroelectricity projects that raise questions of post-colonial oustees and environmental degradation.

## Transportation

After 1750 a revolution in transportation changed the face of human interaction, commerce, military thinking, diet, leisure, and much else. It shortened the temporal distances across the globe. Railroads and steamships lowered consumer costs for perishable goods and provided greater variety in diet. Railroads were the crucial transport technology, later to be augmented by steamships and diesel trucks. In about 100 years the iron horse (and automobile) replaced the horse for many transportation needs. These technologies contributed to social mobility, international travel, and the migration of millions of people through the rapid expansion of passenger service. Transport technologies also facilitated colonial control, military conquest, and getting goods – fibers, minerals, and the like – to markets, for the British in India; the French in West Africa; and the Japanese in Manchuria, that enabled the exploitation of coal, the construction of harbors, warehouses, and mills, and the construction of shale oil and chemical plants; and so on.

Taken together with advances in refrigeration, for example, transport innovations enabled the international trade of fruits and vegetables that would have spoiled in earlier years. Steamships stimulated the development of banana culture from plantations in the Caribbean and Central America with shipments to the United States and today from India, several African countries, and China. Overall, long distance freight rates dropped by over 80 percent in many cases, shipping times fell even more, and volumes increased substantially. By the turn of the twentieth century intermodal freight transport (container shipping involving rail, ship, and/or truck), without any handling of the freight itself when changing modes, reduced handling, damage, and loss, while permitting even higher speeds. Although slower than air, modern sea transport which uses containers and other modes, reached 7.4 billion tons of cargo in 2007.

The railroad was a symbol of nineteenth-century technology. Rails and flanged wheels enabled a reduction in friction when carrying heavier loads,

but the most important invention was using steam engines for locomotion. British and American entrepreneurs led the way. British visionaries saw their country's small land mass as facilitating a national rail system. Rails sped the transport of coal and finished goods like cotton, tying together industrial areas and ports. In 1830 there were 98 total miles of rail in England and in 1860 there were 10,433 miles.

In the United States, between 1810 and 1830 several individuals proposed building locomotives and test tracks; over the next thirty years railroad construction accelerated as they replaced canals as the major mode of transportation. In 1869 a transcontinental link was established, securing the coherence of a sprawling country. As in Britain, in the United States railroads helped build a national market and national consciousness, and served as emblems of national technological prowess. The American rail network was also war-related (during the Civil War and wars against Native Americans) and often heavily state-subsidized.

All major European countries sought both symbolic and practical goals in building national rail networks. In France a state-sponsored centralized system aimed to achieve political and cultural goals; in Germany railroads contributed to the unification of the state politically and militarily in 1871; in Russia rail development lagged far behind Europe as the Tsar supported it belatedly and only for military reasons – to compete in the Far East and Manchuria with Japan. His minister of finance, Sergei Witte, pursued the railroad as a tool of modernization. The First World War revealed the failure of the Tsarist government to support the development of transportation as the need to move troops and weapons overwhelmed the system. In 1916 the government funded the construction of a rail link from Murmansk on the Barents Sea to St. Petersburg using slave labor, in a belated effort to turn the tide in a failed war against Germany.

Governmental regulation of technological risk accompanied these developments in transport. In 1838 the *Moselle* paddle boat exploded near Cincinnati killing at least eighty people when four boilers burst; from 1816 until 1848 at least 1,433 people died in steamboat accidents in the United States. The accident led to the passage of the 1838 Steamboat Act, the first federal regulation of private industry that required licenses and inspections. Railways in Britain also inspired early efforts at government regulation in the interest of safety. Transport technology was not alone in attracting regulatory supervision in the nineteenth century, but as one of the most dynamic, visible, and dangerous technologies going, it came in for more than most. In the years after the Second World War governments became much

more active in regulating transport technology, and indeed technology in general, an important part of the general expansion of the role of the modern state. Other state actions – for example, the evolution of tort law and growth of limited liability corporations – served to limit the risk borne by transport companies. By the late twentieth century corporations were selling “safety” in their conveyances; for example, the automobile with its airbags and increased crashworthiness.

Like the railroad in the nineteenth century, automobiles in the twentieth became a symbol of industrialization and mass production. Demand and supply grew exponentially, especially in the United States, from under 3,000 total in 1901 to 13,000 in 1904, to 130,000 in 1910 and over 1.3 million units in 1916. By the turn of the twenty-first century, manufacturers in the United States turned out over 11 million cars and commercial vehicles annually and other nations of the world produced another 76 million vehicles, with growing markets in India and China. In 2010 Indian production reached 3 million units, while in 2009 China passed the United States in overall automobile production.

Automobiles have become pervasive and affect just about everything. They became a major source of air pollution, even in modern models, with significant contribution to global warming. They were a social force and cultural icon and, rightly or not, a mark of independence and freedom. The “Trabant” in socialist East Germany with its inefficient, polluting two-stroke engine was an icon of failed consumer culture. Almost everywhere the automobile has supplanted public transport, especially after the Second World War, and contributed to suburbanization. Since the construction of the Interstate Highway system in the United States and the rise of the automobile after the Second World War, the railroad has declined significantly in terms of freight miles and passenger miles. Also in the United States, the automobile contributed to racial segregation as primarily white people moved out of cities, lowering the tax base, and leading to urban decay.

### Building materials from concrete to girders

The rise of the built environment of cities and suburbs accompanied revolutions in transport. Connected with this, building materials have undergone significant and rapid change especially through the application plastics; concrete and reinforced concrete; float glass; and new steels. While concrete and iron have been used for centuries, their industrial production in factories and improvements in ways to produce, strengthen, test, and cure them, while

cutting their cost, led to significant expansion in their use. At first, concrete was used mostly in industrial buildings, since many people considered it aesthetically unpleasant. But use of concrete in buildings became widespread in the second half of the nineteenth century, especially through the use of reinforced concrete and improvements in Portland cement. By the 1920s it was being used in large buildings and by the 1930s on major concrete dams. The Hoover Dam, completed in 1935, consists of 3.3 million cubic yards (2.5 million cubic metres) of concrete that was poured in a series of blocks and columns so that it dried quickly and without forming significant stresses and cracks. “Jersey barriers” – highway dividers – became widespread in the 1950s, as did concrete slabs, beams, columns, and floors. Growing experience in building with reinforced concrete gave rise to “thin-shell” techniques for roofs, domes, and arches. Examples of innovative concrete structures include Spanish engineer Eduardo Torroja’s design of a low-rise dome for the market at Algeciras; Italian Pier Luigi Nervi’s hangars for the Italian Air Force; and Frank Lloyd Wright’s Guggenheim Museum in New York City.

Concrete also had local uses. Manufacturers began to sell it in drums and then in bags. With industrial pre-fabrication, they sold inexpensive forms – concrete blocks, pavers, flower pots. Concrete blocks have widespread use in developing countries to raise houses off the ground and as pavers where full-depth roadways are too expensive. By the end of the twentieth century concrete was a US\$35 billion industry that employed more than 2 million people in the United States alone.

Urbanization meant vast, noisy, and disorderly housing, often overcrowded tenements, with garbage, waste, and excrement accumulating next to industrial waste, and inadequate water supply. Typhus and other water-borne diseases frequently felled city residents in epidemics. In the late nineteenth century public health officials pushed to build sewer and water supply systems and to build safe and clean public housing. Often extractive industries provided their own housing from the nineteenth century, but many of these “company towns” were monopolistic, used scrip to pay workers, and enabled the companies to consume the workers’ pay in housing and food. Company towns included Le Creusot (mining) in France; Ludwigshafen, Wolfsburg (automobiles), and Leverkusen (chemical dyes) in Germany; Kiruna (mining) in Sweden; Kitakyushu (mining) in Japan; and Widzew (textiles) in Poland. Weimar Germany in the 1920s was a pioneer in public housing.

Industrial construction techniques and materials enabled urban housing to be built relatively inexpensively in the name of public health and welfare.

After the Second World War this housing expanded rapidly in the United States and Western Europe. Under socialism in Eastern Europe and the Soviet Union, major industries gained responsibility to provide housing for their laborers who thus ended up living in close proximity to noise and pollution. Magnitogorsk in the Ural Mountain region was the first of many such Soviet industrial towns. Under Nikita Khrushchev the Soviet housing program began to make headway in providing decent housing with millions of mass-produced units added annually beginning in the late 1950s.

In most countries of Asia and Africa public housing has lagged considerably and the average household in these countries contained several times more people than in the industrial north and west. Migration to cities accelerated in the second half of the twentieth century. In Vietnam, because of government policy, by 2020 there will be 45 million city dwellers, about 45 percent of the population, which will put more pressure on housing stock, 25 percent of which the government already classifies as substandard or temporary. In Bangladesh, according to the 1991 census, four-fifths of dwellings were made of straw or bamboo. In India, the majority of people occupy 10 square meters of space for living, sleeping, cooking, washing, and toilet needs; 400 million Indians do not have access to a proper toilet and there are extensive slums. In Brazil, similarly, because of rapid urbanization and the government's late turn to public housing, millions of people lack proper housing, mostly in the southeast and northeast regions, many existing dwellings fail to meet public health requirements, and programs in the early twenty-first century to increase stock by millions of units annually have lagged.

Suburban housing, like urban apartments, was often mass produced in developments that, through excavation and clearing of land, had a significant environmental impact. Mass production greatly lowered the cost per unit and made possible the postwar rise in home ownership in the United States from just under 40 percent (where the level had remained since the early 1900s) to almost 70 percent by 1970 (where it has remained since). Suburbanization involved also mass consumption of such consumer goods as refrigerators and washing machines, and was accompanied by the spread of such distribution technologies as shopping centers and fast-food restaurants, all of which were connected together in the built environment by the automobile.

## Communications

Communications technology changed rapidly after 1750 as well. From the postal service to the telephone and email; from pens to typewriters and



carbon paper to copy machines and faxes and electronic mail; from long-play records to CDs and music-sharing services; and from telegraph, radio, film, and television to the computer. All these trajectories are based on increasing miniaturization of components and circuits, making communications technology ubiquitous in every country of the world. Even poor people have mobile telephones. While Internet access remains unevenly distributed, it too is spreading.

Communications also reveal one of the major paradoxes of technologies: they may be used for good purposes, for example the spread of democratic institutions, education, and overcoming isolation, or they may be used by oppressive regimes, for example in the USSR or North Korea, to control citizens. In the USSR, the government strictly regulated access to telephones and copy machines, forcing dissident literature underground. Social media and cell phones were crucial to the Arab Spring of 2011.

Postal systems were established in many countries throughout the world in the nineteenth century. They have generally operated with prepaid fees (stamps) and as subsidized government monopolies. This enabled governments to end expensive, confusing private postal systems. In some countries, postal systems distribute pensions, handle passport applications, and provide other services. In the United States, the Continental Congress appointed Benjamin Franklin postmaster general in 1775, expecting him to harmonize the postal service from Maine to Georgia. By 1808 Robert Fulton's "Clermont" steamboat carried mail – at least unofficially – and by 1815 congress authorized the postmaster general to contract for carriage of mail by steamboat. Regular carriage of mail by rail – and sorting of mail in special wagons – began in the United States in the 1860s. The post offices often established facilities adjacent to major stations throughout the United States and Europe. By the end of the nineteenth century, city and rural free delivery had been established. "Air mail" commenced in 1918. In 1959 postal codes were introduced in Great Britain, in 1964 in the United States, and then generally in all other countries.

The telegraph promised much faster communication than any post office. It uses electrical signals, usually conveyed by wires or radio. By the early nineteenth century, a number of physicists in France and Prussia (Hans Christian Orsted, André-Marie Ampère, Carl Friedrich Gauss, and others) had made progress using wires and magnets to transmit signals that could contain language. In the United States, Samuel Morse and Alfred Vail developed Morse code in the 1830s; in the 1840s the United States Congress funded a telegraph line from Baltimore to Washington, with the first message "What



hath God wrought.” A transcontinental telegraph began operating in 1861, with submarine transatlantic cables soon thereafter. By the turn of the twentieth century, telegraph had dropped in cost and extended throughout much of the world, enabling instantaneous global communication with applications for trade, war, and newspapers (with shared wire services). The Internet, however, and electronic fund transfers put an end to the telegraph by the twenty-first century.

As with many technologies, a number of individuals nearly simultaneously developed the telephone. Since Alexander Graham Bell and his company dominated the US business and his patents were upheld by the US courts, normally he receives credit. The telegraph office remained important to businesses, post offices, railroads, and bureaucracies until the development of the telephone exchange and switchboard. By the early twentieth century the United States led the world in telephone density per person and had 3 million customers. Phones became easier to use, of higher quality, and with better connections with the advent of the single handset model with a rotary dial, automated switching equipment, then push button telephones, and eventually greater versatility as smart phones (with computers, cameras, and other devices) owing to miniaturization through solid-state circuitry.

Many people once worried that the telephone would destroy the family; interrupt dinner, privacy, and sleep; pull impressionable people away to distant contacts; lead to risqué behavior and fraudulent practices; and, paradoxically, interfere with conversation. To some extent, it did. On the other hand, the home telephone broke isolation and added to a family’s social circle. It aided in reporting accidents and the need for emergency assistance. Work phones cut many of the costs of doing business. If at first only the wealthy could afford the phone and connections were poor, now all persons in all walks of life possess a phone. It has become a necessity, not a luxury, with many governments requiring phone companies to provide life-line service at a discount to ensure all citizens are connected for emergencies.

In 2010 there were approximately 6.8 billion mobile phones in the world out of a population of 7 billion people, and in many countries the number of phones exceeds the number of residents: Russia, Italy, Brazil, Germany, the United States, Ukraine, Egypt, and Indonesia, among others. Mobile phones contributed to the openness and rapid spread of information that supported the Arab Spring of 2011 and other social movements. In Tunisia, Egypt, Libya, and Yemen, citizens forced leaders from power and uprisings elsewhere demonstrated citizen dissatisfaction with the status

quo. But modern communications technologies, notably mobile phones, also empower governments against their populations. Most governments monitored phone communications, some of them (e.g. China, Russia, the United States) in the twenty-first century did so on a massive scale, using computers to track millions of people. This practice had deep roots: early on, operators at switchboards could and did listen in on conversations; many early phones were party lines; and beginning in the 1920s and through the Nixon presidency, arms of the US government wire-tapped without court order. Businesses and governments now routinely track individuals' cell phone use and – in the computer world – which websites they visit. Privacy has become a precious commodity that is difficult to secure amidst modern technologies.

### Computing machines

Early computing machines were connected to efforts in cryptography and code breaking. Scientists long sought computing machines but rapid development of the computer itself was connected with the need to undertake complex calculations for weapons of mass destruction – hydrogen bombs. By the early 1970s, many academic institutions had begun to standardize use of mainframe computers. Portable or smaller models developed in the 1980s, with microprocessors facilitating this step. Home computers and mass marketing followed soon thereafter. In 2010 there were likely 1 billion computers in the world, up from 500 million in 2002, and 48,000 in 1977. Beyond rapid calculation, computers have myriad uses including data storage and manipulation, calculation, and CAD/CAM (computer assisted design and manufacture).

But as noted, the most visible use of computing machines is as part of digital communications. By the twenty-first century through linked phone and computer systems, social networking sites proliferated, allowing people to communicate, share photographs and news, meet more easily, organize, find individuals with similar interests, and so on. The first step was the SMS (short message service) that at first grew popular among young people. People of all walks of life now communicate constantly using their phones and computers. In a word, modern communications technologies both encouraged democratic activities through education and access to information, and by mobilization to assemble or organize, and also served tyranny. But without a doubt the ubiquitous phone has penetrated social, business, and political life no matter an individual's occupations or habits.

## Nuclear technologies: military and peaceful

Many of the technologies and processes discussed grew out of or found military applications. Interchangeable parts contributed to the rise of the American system and the assembly line. New steels contributed to armored vessels, then tanks and modern ships. Computers helped design nuclear weapons and became essential to so-called smart weapons and drones. From the points of view of geopolitics, environmental degradation, and misplaced hubris, nuclear technologies may be the most significant technology of the twentieth century.

When President Dwight Eisenhower gave his “Atoms for Peace” speech at the United Nations in 1953, he sought to slow the Cold War by encouraging the United States, USSR, and other nations to promote peaceful applications through the UN and to defuse public suspicions that the “atom” was only a menace. Scientists around the world welcomed the opportunity to “domesticate” the atom for public consumption and pretend that the benefit of peaceful applications outweighed the dangers of nuclear war. Scientists had long understood that they could use X-rays and quickly found isotopes for diagnostics and treatments, and for industrial sensors and trackers. They irradiated food to “sterilize” it, increase its shelf life, to disinfest it from insects. Radiation sterilization was not a widespread practice because it costs a great deal to build facilities to irradiate food, while washing food is cheaper and usually just as good, but over sixty nations have programs; the impetus to food irradiation was from the military to provide rations at lower costs at great distances in inhospitable climates.

The most visible peaceful use of nuclear energy has been in power reactors to generate heat and electricity; the heat has industrial applications or could be used for desalination of water. The first civilian power reactors were modestly sized and have grown to a standard of about 1,000 or 1,200 megawatts of electricity. The Soviets built the first station to provide electricity to the civilian grid at Obninsk in 1954 at 5,000 kilowatts. By July 2013 there were 403 reactors operating worldwide with 100 in the United States, 58 in France, and 33 in Russia, most of them pressurized water reactors. A reactor is basically a giant tea kettle. It generates power through a controlled, sustained chain reaction, usually using fissile  $^{235}\text{U}$  or  $^{239}\text{Pu}$  as fuel. Fuel, made up of heavy atoms that split when they absorb neutrons, is placed into the reactor vessel (basically a large tank) along with a small neutron source. The neutrons start a chain reaction where each atom that splits releases more neutrons that cause other atoms to split. Each time an

atom splits, it releases large amounts of energy in the form of heat. The heat is carried out of the reactor by coolant, which is most commonly water. The coolant turns water into steam that pushes a turbine to spin a generator or drive shaft.

The advantages of nuclear power include the fact that reactors produce no such pollutants as sulfates, nitrates, or greenhouse gases. They are relatively clean compared to fossil-fuel energy. Nuclear power stations, however, require huge takings of land for the station site and exclusion zone, and cooling water released into the environment has a direct and immediate impact on ecosystems, even when it is first cooled substantially. When factoring in mining accidents, transport of fuel, respiratory diseases, and the like, nuclear power has proven safer than fossil fuel. Yet nuclear power has high capital costs, an ominous presence because of the need for extensive security, including against terror, and the risk of catastrophic accidents. To meet those costs, nuclear power has required billions of dollars, pounds, Euros, marks, yen, and rubles of subsidies and special indemnity insurance that limits the legal liability of nuclear facilities.

Major accidents have also been quite costly: at Three Mile Island in Pennsylvania in 1979 with a partial meltdown; Chernobyl in 1986 with a massive explosion, destruction of a reactor, and release of vast quantities of radioactivity throughout the globe and likely 50,000 excess deaths; and the destruction of Fukushima Daiichi in 2012 by a tsunami with continuing, extensive radioactive and indeterminable human and environmental costs. Plant managers after all three accidents also lied about the dangers and risks.

Military applications – in the form of atomic bombs – were the icon of military technology and of a state-science-engineering partnership. President Franklin Roosevelt authorized the US project after Leo Szilard and Albert Einstein alerted him to the danger of a Nazi bomb in 1939. This led to a crash program (the “Manhattan Project”) which demonstrated the effectiveness of fully supported military research conducted by quasi-independent civilian scientists. J. Robert Oppenheimer, a theoretical physicist and superb organizer, was selected to run the project. General Leslie Groves headed the military side. Oppenheimer gathered some of the world’s great physicists in Los Alamos, New Mexico, and in July 1945 they detonated the first atomic bomb in the nearby desert. On August 6, the United States dropped an atomic bomb on Hiroshima, Japan, and on August 9 dropped a bomb on Nagasaki. In all, both bombs killed 150,000 directly and likely another 50,000 people died from illness, radiation poisoning, and other factors within the next year; the

decision to use these weapons has remained controversial ever since. Japan agreed to unconditional surrender to the United States on August 15.

The Soviets did not face any similar moral, financial, or political conundrums in racing the United States to build the atomic bomb. Joseph Stalin ordered Secret Police Chief Lavrenty Beria to assemble the necessary manpower, facilities, and other resources to complete the project without delay. He appointed Igor Kurchatov, Oppenheimer's counterpart, to run the scientific aspects of the project. Very quickly, on about the same time-scale as in the United States, the Soviets assembled the F-1 test reactor, began producing plutonium, learned how to enrich fissile fuel, and in August 1949 detonated their first atomic bomb. Granted, the Soviets had the benefit of knowing that a bomb could be assembled and had access to information via espionage. But the espionage only confirmed that scientists were on the right track; it was not a bomb blueprint. The Soviet bomb was an indigenous effort. The British, French, and Chinese next built nuclear weapons. (The Nazi effort had failed.) By 2010, India, Pakistan, and North Korea had acquired the bomb; Israel almost certainly has nuclear weapons; Iran and several other nations have pursued advanced uranium fuel processing, which is a precondition to enrich uranium sufficiently to build a bomb.

Scientists studied nuclear fission and fusion under the pressures of secrecy, world war, and the Cold War. Over seventy-five years they supervised atmospheric and underground testing of thousands of nuclear weapons that spread dangerous radioisotopes with significant human health concerns (roughly 2,000 tests in all, half by the United States); subjected animals and humans to higher-than-appropriate exposures in "tests"; sent soldiers into "ground zero" immediately after detonation without proper safety and monitoring equipment; and approved the haphazard disposal of low- and high-level radioactive waste that has leached into groundwater and spread through ecosystems. They assured policymakers and citizens that reactors were safe as they built larger and larger units whose failures are now common language (Three Mile Island, Chernobyl, Fukushima).

The human and environmental costs, and inherent immorality, of nuclear weapons becomes clearer when understanding how indigenous people bore the brunt of testing and developing atomic bombs. Much of the uranium ore in the United States was located on Indian territories, so the government coerced tribes into granting concessions at low royalty rates or through existing laws that favored prospectors to get at the stuff. Indians also mined the ore; many Navajo miners have significantly higher

lung cancer rates than other populations. The US government also moved the Bikinians off their homeland atoll in the South Pacific to use it as an atomic bomb testing ground. The government promised to move them back and has not been able to scores of years later because of persistent radioactive contamination. Similarly, the Soviet Union and France used imperial power to test nuclear devices, in the former case subjecting Kazakhstan and Nenets lands in the Arctic to extensive pollution, while the French exploited and abused the islands and populations of French Polynesia. Many other individuals suffered the severe, yet often not completely documented or still “secret” effects of exposure to radiation from testing: so-called downwinders in Utah and Nevada and Kazakhstan. Few of these individuals were able to get compensation, let alone answers, even in the 1990s after the Cold War ended.

Most of the other applications for nuclear technology were military as well. The Soviets built over two hundred reactors for submarines. Because of high power density and elimination of the need to carry fuel, nuclear propulsion left more space for cargo and enabled higher speeds and greater distances without refueling. The US and Soviets spent billions of dollars and rubles on space applications (rocket engines) and nuclear airplanes. These programs were unsuccessful, although various nuclear-powered satellites were launched and perhaps some thirty space-based reactors orbited the earth in 2012. The Soviets pursued also nuclear icebreakers. But the most expensive and extensive application was nuclear warheads, of which there were 68,000 at peak in 1985 versus roughly 17,000 in nine countries in 2013.

### Agriculture, agronomy, and agribusiness: self-augmenting technology

An industrial paradigm extended to agriculture, with each innovation calling forth another, substituting machine power for human power, lowering prices so that demand increased, and triggering still more efforts to mechanize agriculture to lower production costs and increase output. Research scientists developed crops that were amenable to mechanical tending. By the 1950s, this cycle found full expression in the planting of monocultures of cash crops that could be planted, tended, harvested, and transported to markets by machines. It should be noted that some of these technologies, mostly biological or chemical, aimed at increasing the amount of something that could be grown with limited inputs (that is, by raising yields per acre), while other technologies, mostly mechanical, mostly aimed at reducing the

cost of resources (mostly labor) needed for production. These technologies had very different implications for social relations, with some “releasing” labor from agriculture and contributing to urbanization, and others having an impact on the carrying capacity of the earth – the maximum population size that can be sustained indefinitely – and so on.

As a first step, during the Industrial Revolution inventors sought to apply advances in power generation, new materials, and machines to agriculture. Many of the early technological innovations originated in Britain and the United States. Such machines as reapers, rakes, mowers, and hay loaders had a mutually reinforcing effect on supply and demand. For example, the cotton gin quickly separated seeds from cotton, enabling more planting, and mechanized spinning made yarn cheaper – and more in demand – that led to more cotton being grown. Milking machines enabled the industrial production of milk. The internal combustion engine found its place in agriculture in the early twentieth century in the tractor and other machines. No longer would land contours prevent reshaping of farms, nor would forests, stumps, rocks and boulders, streams and rivers create insurmountable obstacles. The increasingly powerful tractor appeared in large numbers, enabling farms to extend to the horizon, and almost requiring the planting of monocultures of corn, wheat, soybeans, and other cash crops beyond the limits of demand. The tractor, according to this “technologically determinist” argument, pushed agricultural production beyond the needs of demand to production for the sake of production. Along with other machines, such as bulldozers for clearing land, planters, and harvesters, tractors could operate seemingly without limits. The result by the second half of the twentieth century was mega-farms or agribusinesses. While the United States was a leader in tractor production, the USSR embraced it with verve, for Soviet leaders saw the tractor as the means by which to convert the peasant to socialism.

By the 1920s industrial terms had penetrated agricultural, fishery, and forestry journals, as engineers pushed developments in technology to the living world. Humans have understood for centuries that they could produce better crops and farm animals through hybridization even if they did not comprehend the mechanisms. Scientists learned, first in the laboratory and now commercially, how to manipulate genes in genetic engineering. Most of the effort to apply genetic technology has been in agriculture and driven by large corporations seeking to produce crops less susceptible to pests and unexpected weather. In addition, genetic modification has allowed earlier harvesting, easier shipment, heavier doses of pesticides and herbicides, and faster-growing livestock that offer more meat, milk, and fat. To date,



researchers, governments, and corporations have spent billions of dollars on research, commercial development, and regulation, with the European Union taking a lead in regulating genetically modified organisms (GMOs). In the United States with its relatively weak regulatory framework, many aspects of GMO regulation are voluntary, and depend on companies to consult on safety issues or share data with the government. An adjunct of GMOs is the Concentrated Animal Feed Operations (CAFOs), or industrialization of animal production, raising, and slaughter. The industrialization of animal slaughter goes back to the mid-nineteenth century, when cities in the American Midwest pioneered new slaughterhouse and meat-packing technologies that allowed the swift dispatch of several million cattle and hogs every year. CAFOs, developed especially after 1945, brought similar industrial efficiency to the production of livestock. They came to rely on standard, “mass-produced” animals. CAFOs confine large numbers of animals in close quarters in which feed, manure, sick animals, and disease share space – often metal buildings and pens that restrict the behavior and movement of animals who rarely have access to sunlight or fresh air. Their environmental costs – the spread of vast offal and manure lagoons, antibiotic-resistant bacteria, erosion, and so on – proved difficult to remediate (Fig. 5.5).



Figure 5.5 Dairy cows feed on grain inside a barn of a modern dairy farm in Loganville, Wisconsin, United States

(© Paul Damien/National Geographic Society/Corbis)



## Technology and the state in the twenty-first century

By the twenty-first century, technology was integrally tied to every economy in the world. It had made the world more interconnected through advances in transport and communication. It appeared in such areas of human activity in industrial forms and attitudes as agriculture and geo-engineering of rivers and forests. The pace of technological innovation appeared to have increased in each field, and because of miniaturization and deft manipulation had had its largest recent impacts on data management devices and on genetics through genetic engineering and GMOs.

In the twentieth century, technological systems became increasingly large scale and tied to state power, and the major expenditures on technology occurred in the military sphere directly or indirectly. The communist Soviet Union, fascist National Socialist Germany, the People's Republic of China, and democratic United States all supported big science and technology. In the United States, not only the Manhattan Project, but also NASA (the National Aeronautics and Space Administration, established in 1957) and its predecessors grew rapidly on the united force of the private sector, the military, and universities. In Nazi Germany, highways, research institutes, and military research and development united the country's industrialists with modern technology, as had the Kaiser Wilhelm Society institutes earlier in the twentieth century. In the USSR, the entire technological endeavor rested on state-funded research, development, innovation, and production in research institutes of the Academy of Sciences and industrial ministries. Brazil, China, France, Great Britain, India, South Korea – and dozens of other countries – similarly worked to link state support with technological advance for public health, economic, and military purposes.

Finally, its benefits and risks still remained a question of debate. World industrialization, or globalization as it is sometimes called, involved the establishment of factories in countries with an unskilled and poorly paid labor force that produces goods and services more cheaply than in the industrialized nations; some individuals believe that globalization will inevitably lead to modernization which they see as inherently good. Others believe that globalization repeats the social displacement and political changes that accompanied the Industrial Revolution, including poor safety conditions and child labor.

## Further reading

Bennett, David. *Skyscrapers: Form and Function*. New York: Simon & Schuster, 1995.  
Bijker, Wiebe. *Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change*. Cambridge, MA: MIT Press, 1995.

- Binfield, Kevin. *Writings of the Luddites* Baltimore, MD, and London: Johns Hopkins University Press, 2004.
- Flink, James. *The Automobile Age*. Cambridge, MA: MIT Press, 1988.
- Henkin, David. *The Postal Age: The Emergence of Modern Communications in Nineteenth-century America*. University of Chicago Press, 2006.
- Hills, Richard. *Power from Steam: A History of the Stationary Steam Engine*. Cambridge University Press, 1989.
- Hounshell, David. *From the American System to Mass Production, 1800–1932: The Development of Manufacturing Technology in the United States*. Baltimore, MD: Johns Hopkins University Press, 1984.
- IG Farben: von Anilin bis Zwangsarbeit: zur Geschichte von BASF, Bayer, Hoechst und anderen deutschen Chemie-Konzernen. Stuttgart: Schmetterling, 1995.
- Josephson, Paul. *Industrialized Nature: Brute Force Technology and the Transformation of the Natural World*. Washington, DC: Island Press, 2002.
- Kallinich, Joachim, and Sylvia de Pasquale, eds. *Ein offenes Geheimnis: Post- und Telefonkontrolle in der DDR*. Heidelberg: Edition Braus, 2002.
- Kansteiner, Wulf. "Nazis, viewers and statistics: television history, television audience research and collective memory in West Germany." *Journal of Contemporary History* 39:4, Special Issue: Collective Memory (October 2004), 575–598.
- Landes, David. *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present*. Cambridge University Press, 1969.
- Marx, Karl. *Capital: Critique of Political Economy*, trans. Ben Fowkes, 3 vols. [1867, 1895, 1894]; London: Penguin, 1990–1992.
- Medvedev, Zhores. *The Legacy of Chernobyl*. New York: Norton, 1992.
- Nilsen, Alf Gunvald. *Dispossession and Resistance in India: The River and the Rage*. London and New York: Routledge, 2010.
- O'Brien, Patrick. *Railways and the Economic Development of Western Europe, 1830–1914*. New York: St. Martin's Press, 1983.
- Peyret, Henry. *Histoire des Chemins de fer en France et dans le Monde*. Paris: Société d'Éditions Françaises et Internationales, 1949.
- Pomeranz, Kenneth. *The Great Divergence: China, Europe, and the Making of the Modern World Economy*. Princeton University Press, 2000.
- Rees, Jonathan. *Refrigeration Nation: A History of Ice, Appliances, and Enterprise in America*. Baltimore, MD: Johns Hopkins University Press, 2013.
- Rhodes, Richard. *The Making of the Atomic Bomb*. New York: Simon & Schuster, 1986.
- Seel, Peter. *Digital Universe: The Global Telecommunication Revolution*. Chichester, West Sussex and Malden, MA: Wiley-Blackwell, 2012.
- Tiwari, R. D. *Railways in Modern India*. Bombay: New Book Company, 1941.
- Tressler, Donald, and Clifford Evers. *The Freezing Preservation of Foods*, 3rd edn. Westport, CT: Avi Publishing Company, 1957.
- Tucker, Barbara M. *Samuel Slater and the Origins of the American Textile Industry, 1790–1860*. Ithaca, NY: Cornell University Press, 1984.
- Wilson, A. C. "A thousand years of postal and telecommunications services in Russia." *New Zealand Slavonic Journal* (1989–1990), 135–166.

- Yamaguchi, Tomiko, and Fumiaki Suda. "Changing social order and the quest for justification: GMO controversies in Japan." *Science, Technology, & Human Values* 35:3 (May 2010), 382–407.
- Zemin, Jiang. "Water Law of the People's Republic of China (Order of the President No. 74)," August 29, 2002, [www.gov.cn/english/laws/2005-10/09/content\\_75313.htm](http://www.gov.cn/english/laws/2005-10/09/content_75313.htm).

## A new world of energy

VACLAV SMIL

By the 1750s a few small regions of Western Europe (most notably parts of England, Wales, Scotland, Belgium, and Germany) were in the early stages of energy transition from plant fuels to fossil fuels and from animate prime movers to machines powered by combustion. This remarkably rapid epochal shift created the modern world, which is marked by unprecedented magnitudes and efficiencies of energy uses, enormous technical advances, rapid population and economic growth, and new social arrangements. Eventually the entire world was transformed by this grand transition, but until after the middle of the twentieth century surprisingly little was added to its progress outside North Atlantic Europe (where the process began) and the United States (where it reached new heights and maturity between 1870 and 1950).

Great powers of the past that continued to rely on traditional energy sources and on animate prime movers were swiftly left far behind: although in aggregate terms China, with its large population, remained the world's largest economy until the 1880s, in per capita terms its economic product had stagnated for many generations and by 1913 it was less than a tenth of the British rate, which had quadrupled in less than a century. Similarly, the US economy, whose aggregate size was only about a tenth of India's value in 1820, was 2.5 times as large in 1913, and roughly eight times as rich in per capita terms.

In fundamental energetic terms the path of all late modernizers was thus preordained: in all cases the subsequent economic development had to follow the new Euro-American pattern of energy uses. This first became evident in the case of two new economic and military rivals to the Atlantic dominance – imperial Japan (starting in the 1870s) and Soviet Russia (starting in the 1920s). Both of these had to base their quest for influence on copying, adopting, and adapting Western techniques, resting on a mastery of new energy sources, such as coal, oil, and hydroenergy, and new energy converters, including internal combustion engines and electric motors and lights.

They intensified this quest after the Second World War when they were joined by the world's most populous economies, China and India. China's epochal energy transition began only during the 1950s; it was marked initially by some tragic choices, including the Great Leap Forward and the ensuing famine of 1959–1961, and entered an accelerated stage only during the 1980s. India's transition took off only during the 1990s.

Historians have not ignored energy as a subject of their studies but it is undeniable that the production, transport, and conversion of fuels and electricity and multitudes of their final uses have been, at least in explicit terms, relatively neglected as a leading topic of modern historical inquiries. Of course, dealing with energy cannot be avoided. After all, as any physicist would point out, every action (from shining stars to marching armies) requires a conversion of one form of energy into another – and a thermodynamicist would add that all those conversions entail a loss of entropy, that is a decrease in energy's utility: no energy ever gets lost but every conversion degrades its quality, so say the two most fundamental physical laws.

So all historians are unwitting illustrators of the universal dictates of thermodynamic laws. In addition, although they rarely use the term power in their writings in its correct physical meaning, that is, as energy flow per unit of time (rather than as a common descriptor of might or military capacity), many historians have contributed detailed insights into the evolution of prime movers (humans, draft animals, waterwheels, windmills, steam engines, internal combustion, rockets), energy sources (wood and charcoal, coal, oil and natural gas, thermal and hydroelectricity generation), and their uses. And the minority of historians dealing explicitly with the complex phenomena of energy has been joined by assorted interdisciplinarians contributing their knowledge and insight from other fields.

Consequently, we have been fairly well served with many detailed historical studies of particular energy sectors. The history of coal is particularly well covered, as is that of electricity generation and use. The evolution of prime movers ranging from horses and sailing ships to internal combustion engines has been well studied, as have the vehicles, ships, and airplanes these engines have powered.

### Measuring energy advances

The breadth and quality of existing studies allows me not to recapitulate their findings, many of which provide fascinating but highly time- and place-specific details. Instead I will concentrate on just six universal measures, the

understanding of which offers convenient keys to unlocking the meaning and import of past energy developments that have created the modern world through an unprecedented (and perhaps unrepeatable?) combination of advances. These are: energy density, power density, the maximum power of prime movers, the efficiency of energy conversions, the per capita consumption of useful energy, and, given the role of violent conflicts in history, the maximum energies of weapons.

Before 1750 most of these indicators had either remained (quantitatively and qualitatively) entirely unchanged or had shown only very slow, hesitant, and uneven advances during the millennia of recorded history. As a result, in 1700 Chinese peasants plowing grain fields, Indian builders erecting tall structures, Turkish merchants trading with distant places, Italian messengers carrying urgent news, English laborers smelting metals, and Inca families cooking their meals relied overwhelmingly on the same energy sources (low-energy-density plant fuels) and on the same prime movers (their own muscles or the exertions of often inadequately fed domesticated animals) that their predecessors used one or two millennia earlier.

There were some notable improvements but they took place very slowly: their use was largely restricted to only a few regions and did not amount to a fundamental qualitative change. By 1700 the best-built English waterwheels, whose origins go back to antiquity, became fairly efficient, as did (after nearly a millennium of evolution) the best windmill designs, but in many regions both devices did not greatly differ from their ancient prototypes. For example, simple "Cretan" windmills with four to twelve triangular cloth sails were used around the Mediterranean in an unchanged form from medieval to modern times, while in other regions (most notably in parts of China and Japan) any mechanical prime movers were a rarity.

By contrast to the unchanging, stagnating, or very slowly improving measures concerning the quality of energy sources and the performance of prime movers before 1750, the centuries after this brought great changes, introducing not only impressive quantitative gains but also fundamentally superior qualities. When seen from physical thermodynamic perspectives, the magnitude of those stunning, concatenated post-1750 changes can be traced by following the (rising or declining) trajectories of the fundamental measures and by comparing their outcomes at the end of the twentieth century with the performances that prevailed in the middle of the eighteenth century. Doing so requires, as energy studies invariably do, plenty of numbers, but I will deploy them in a user-friendly way, explaining the quantities and key assumptions in order to allow an interested reader to

verify and replicate the calculations as a means toward a deeper understanding of fundamental energy realities that help to explain much of post-1750 world history.

### Energy density

The first of my six universal measures is the fundamental matter of energy density, that is, the quantity of energy in a unit mass of matter: in modern scientific parlance this is joules (J) per gram (g) or (because both of those are such tiny units), megajoules (MJ) per kilogram (kg) or gigajoules (GJ) per tonne (t), and because both of those units go up three orders of magnitude in each step the number itself does not change. At a basic existential level, the importance of this variable is best grasped by comparing the energy densities of different types of food, because acquiring food determined much of the behavior of our species during the first 95 percent of its existence. Active lives of adult gatherers and hunters demanded easily more than 13 MJ of food energy a day. Getting them from leaves or stems (as many primates, including gorillas, do) would require eating more than 15 kg of such plant mass a day and spending most days just gathering that amount, leaving little time for evolving more intelligent existence.

Getting that amount from fruits (as do chimpanzees, our closest primate relatives) would require finding 5 kg of them a day, an equivalent of more than thirty apples, sweet but with no fat and with only a low share of the protein needed for growth; not surprisingly, in their quest for protein chimpanzees also hunt colobus monkeys and “fish” for termites with blades of grass. And securing 13 MJ a day by foraging for nutritious underground biomass required digging 5 kg of tubers by hand or with simple digging sticks, and would still lead to deficiencies in protein and fat. And, obviously, fruits and tubers could be had in temperate and boreal regions only seasonally, restricting the extent of human habitation.

In contrast, killing of megaherbivores (mammoth, bison, giant elk) provided hundreds of kilograms of fatty meat and internal organs whose high energy density made it possible to survive in boreal environments. Eating just 1.5–2 kg of this food supplied not only all the needed energy but also plenty of the best-quality protein and fat. No wonder our ancestors were willing to take their chances by hunting animals whose body mass was ten or even fifty times greater than their own. These quests left them well fed and with enough free time to create admirable paintings of animals on the cave walls of Altamira, Lascaux, or Chauvet.

Advantages of higher energy density are no less discernible in the quest for fuels. Although some fossil fuels were used millennia ago, such as outcropping coal in Han China and bitumen pools in ancient Mesopotamia, the only fuels used by most societies since antiquity were a few varieties of phytomass: wood (usually burned after a period of air-drying), charcoal derived from it, crop residues (mostly cereal straws), roots, leaves, and grasses. A few minor exceptions aside, since their emergence as a distinct species humans had thus lived only by tapping solar energy recently transformed into food and fuel, that is, by relying on almost instant flows (a financial equivalent would be to stay on a steady income) of renewable energy. Large-scale coal mining began the epochal switch of the energy basis of our society to living on ancient accumulations of solar flows, on products of photosynthesis transformed after millions of years of underground processing into carbonaceous fuels: we began to draw on a finite store of accumulated energy capital.

Between 1750 and 1900 there was an exponential expansion of coal mining in Europe and the United States (as well as the beginning of modern coal industries in Russia, China, and India), and during the last decade of the nineteenth century the energy content of extracted coal had surpassed the aggregate energy content of phytomass fuels burned worldwide to generate household and industrial heat. And by that time coal was not the only fossil fuel that was extracted on a commercial scale: new industries tapping crude oil emerged in the United States, Russia, Burma, and Indonesia and the United States pioneered the use of natural gas. Comparison of energy densities of these fuels makes it clear why modern civilization is so fundamentally different from its predecessors.

All phytomass fuels are products of photosynthesis, with cellulose and lignin dominating their chemical composition and their energy density. As a result, their energy density is around 15 MJ per kg of air-dry matter. There was an option of using pyrolysis (slow heating in the absence of oxygen) to produce charcoal from wood (and sometimes from other biomass): every Old World civilization used it, from antiquity into the twentieth century. But while charcoal (a nearly pure carbon) has energy density of 29 MJ/kg (nearly twice that of air-dry wood), its traditional production required at least five units of wood per unit of charcoal, resulting in 60 percent loss of initially charged energy and making charcoal much more expensive than wood and beyond the reach of most people.

Anthracite, the best variety of coal, has pretty much the same high energy density as charcoal (29–30 MJ/kg), and that is why its accessible reserves



were the first ones to be exhausted: its extraction peaked in Pennsylvania in 1917 (at about 90 megatonnes (Mt)/year) and by 1970 it was less than 10 percent of that peak. Most bituminous coals (used to generate electricity or to produce metallurgical coke) have densities 1.5 times that of air-dry wood (22–23 MJ/kg), while a kilogram of refined oil products (be it gasoline, kerosene, or diesel fuel) packs about 42 MJ, nearly three times the energy density of air-dried wood. Moreover, crude oil (petroleum) and liquid fuels produced from it by the refining of crude oil (gasoline, kerosene, diesel fuel, heavy oil) are particularly convenient: easy to transport (by pipelines, ships, barges, trucks), easy to store (underground or in aboveground tanks), flexible to use (for any stationary application and for land, water, and air transport). As a result, economies relying on liquid fuels are far more efficient and flexible than those dependent on coal or wood.

Many limits and possibilities of everyday options and historical developments can be explained by comparing energy densities: the more concentrated sources of energy offer many great advantages in terms of their extraction, transportation, and storage costs, flexibility of use and conversion options. An excellent historical example of economic (and hence social) constraints due to energy density concerns the efficiency of transatlantic crossings. For a single crossing in 1907, the ill-fated *Lusitania* (launched in that year as the biggest passenger ship ever and torpedoed by a German U-boat in May 1915) displacing 45,000 t, had to carry about 5,500 t of coal taking up 10,000 m<sup>3</sup> of bunker space (assuming 23 GJ/t, 0.6 t/m<sup>3</sup> of pulverized coal); if it were fueled by wood chips (15 GJ/t; 0.3 t/m<sup>3</sup> of wood chips) its fuel load would have been more than 50 percent heavier and it would have taken up three times as much space – while an oil-fueled vessel of the same displacement would have needed only 3,000 t of fuel oil (42 GJ/t; 0.85 t/m<sup>3</sup>) in tanks taking up only a third of coal storage's space.

Actual mass and volume differences would be even larger because of higher combustion efficiencies of coal versus wood and, even more so, of oil versus coal; but even this simplified comparison makes it clear why there could never be affordable wood-fueled transatlantic crossings that would have transported more than 40 million European emigrants to North and South America, and why the shipping companies switched from coal to fuel oil as soon as the latter high-energy density liquid became reliably available: as with so many technical innovations, that switch was led by the military, as the British Navy, prodded by Winston Churchill, began converting its ships to oil just before the First World War.

## Power density

Many developments can be best explained by examining combinations of energy density and power density. The latter ratio has a number of meanings in different science and engineering disciplines, but I favor its use as a universal measure of energy flow (that is power) per unit of horizontal surface area ( $\text{W}/\text{m}^2$ ). The main advantage of this measure is its suitability for comparing virtually all natural or anthropogenic energy flows, and it is particularly revealing for highlighting the differences between traditional renewable energy flows (characterized by low to very low power densities) and modern fossil fuel uses (proceeding at medium to very high power densities). I will illustrate this by using two revealing examples. The first one demonstrates why mass-scale urbanization, a key attribute of modernization, could not have been fueled by wood, even less so by charcoal, because those phytomass fuels have inherently low power density. The second one calculates the demand that the smelting of civilization's most important metal would have made on the world's forests in the absence of coke made from metallurgical bituminous coal.

During the first decade of the nineteenth century, London's population surpassed 1 million people and its annual energy demand was equivalent to about 4 t of wood per capita used for heating, lighting, and a multitude of small and large manufacturing enterprises. Photosynthesis converts solar radiation into new chemical bonds in wood with inherently low efficiency, and hence all phytomass fuels are produced with very low power densities. Even if London were surrounded by highly productive forests (good beech and oak stands) whose annual wood production averaged 5 t/ha, their cutting would produce fuel with average power density of only about  $0.25 \text{ W}/\text{m}^2$  and the city would have needed a reserve of about 800,000 ha (or a forested circle around the city with a radius of just over 50 km) of which it would have to clear-cut, and promptly replant, some 50,000 ha of mature trees (containing 100 t/ha) every year.

Cutting and transporting that much wood would have been costly and inconvenient; burning it within the city would have been very polluting: polycyclic organic matter released by wood combustion is highly carcinogenic. Replacing all that wood by charcoal would have needed at least 4 tonnes of wood (15 GJ/t) to produce a tonne of charcoal (29 GJ/t), that is, a 50 percent loss of energy due to charcoaling resulting in a power density rate of just  $0.12 \text{ W}/\text{m}^2$  in order to produce convenient, light, sulfur-free, and nearly smokeless fuel. Such low power densities of energy production would have

required very large areas to secure the fuel: with minimized transport, forests would have to encircle the city with a radius of 80 km – and that was for only 1 million people. Not surprisingly, by the early nineteenth century all but a very small share of London's energy came from coal.

Similarly sized contemporaneous Beijing managed with much less coal (extracted in small mines just west of the capital since the tenth century) because its per capita energy use was considerably lower, due to minimal heating in winter (hence cotton-padded clothes worn inside) and to the absence of energy-intensive manufacturing enterprises within the city. Obviously, even in 1810, energizing a rapidly growing and industrializing London-like city solely with wood or charcoal would have been a most impractical and exceedingly costly proposition, and large cities and conurbations of the late nineteenth century and megalopoli of the twentieth century became direct expressions of high-energy-density fossil fuels produced with high power densities: both coal and crude oil could be extracted with power densities commonly 1,000 and often 10,000 times higher ( $>100 - >1,000 \text{ W/m}^2$ ) than the harvests of phytomass fuels.

Similar constraints apply to smelting iron, the metal (now mostly converted to a wide variety of steels) that was and remains the signature material of the modern world: its global annual output is larger than that of the next four most important metals (aluminum, copper, zinc, and lead) combined. For nearly three millennia iron was smelted from its ores by using charcoal. By 1800, global production of 1 Mt of iron would have required (with mass ratios of 8/1 for charcoal/metal and 1/5 for charcoal/wood) about 40 Mt of wood, or the cutting down of 4,000 km<sup>2</sup> of high-density virgin forest a year. If widely spread it would have been a negligible burden at a time when the world still had large areas of intact virgin forests. By the year 2000, efficiencies had improved (charcoal/metal ratio at 0.75/1, charcoal/wood at 1/4) but the global iron output rose to 580 Mt and it would have required about 1.75 gigatonne (Gt)/year of wood.

Even if all of it came from high-yielding tropical plantations (power density of roughly  $0.5 \text{ W/m}^2$ ) it would still mean cutting down annually at least 1.75 million km<sup>2</sup> of trees, an area equal to slightly more than all forests in the European Union. In contrast, when all surface structures needed for coal mining and coking are accounted for, the power density of coke production will be at least  $1,000 \text{ W/m}^2$  (compared to  $0.012 \text{ W/m}^2$  for charcoal). Global output of coke thus occupied less than 10,000 km<sup>2</sup> of land, a difference of four orders of magnitude. This is certainly one of the best examples illustrating the consequences of using energies produced with low power density in modern

high-energy civilization. Moreover, besides obvious cost advantages, coke has an added structural superiority as it can support much heavier charges of ore and limestone than the friable and easily crushable charcoal, making larger and cheaper blast furnaces possible.

### Maximum power of prime movers

Maximum power of individual prime movers matters because it determines the maximum magnitude of many tasks. Mass deployment of smaller power units is often impractical or outright impossible: we would not use ten low-power steam locomotives to pull a heavy train; there is no way to harness one hundred horses to pull in a single direction under a driver's command (the maximum in California's grain fields of the 1890s was more than thirty draft animals harnessed to the earliest combines) and passenger aircrafts with a range of just 200 km cannot be used in a staggered manner to accomplish transoceanic flights.

The post-1750 increase in the maximum power of prime movers controlled by a single person during the performance of quotidian tasks has been enormous. The greatest exercise of concentrated power performed daily by millions of people in 1750 was leading draft animals as they plowed or harrowed crop fields or pulled wagons and coaches on roads. A peasant walking behind his weak ox harrowing a field commanded less than 200 W of draft power (or less than a third of mechanical horsepower of 745.6 watts). During the last decades of the nineteenth century, many farmers plowing the Great Plains wheat fields guided six powerful horses (at least 4 kW), and with the first grain combines pulled by thirty-two animals more than 20 kW of draft power was under a single command at the beginning of the twentieth century.

Another hundred years later and many Great Plains farmers drive 300-horsepower (224 kW) tractors sitting in air-conditioned cabins, while anybody with a driver's licence can be behind the wheel of an even more powerful SUV (the most powerful one on the market in 2011, the BMW X6, rated 407 hp or 303 kW). This means that since 1750 the maximum power of prime movers commonly controlled by millions of individuals in the course of their daily life rose 1,000-fold (three orders of magnitude), from about 200 W to more than 200 kW.

Gains in prime movers commonly used for public transport on land have been even more stunning. In 1750 a driver of a fast four-horse coach held reins of about 2,600 W (2.6 kW). By 1850 an engineer of a steam locomotive

Table 6.1 Maximum power of prime movers in field work

Date and prime mover	W
1750 Chinese peasant hoeing a cabbage field	50
1750 Italian peasant harrowing with an old, weak ox	200
1800 English farmer plowing with two small horses	1,000
1870 North Dakota farmer plowing with six powerful horses	4,000
1900 California farmer using thirty-two horses to pull a combine	22,000
1950 French farmer harvesting with a small tractor	50,000
2000 Manitoba farmer plowing with a large diesel tractor	224,000

Table 6.2 Maximum power of prime movers in land transportation

Date and prime mover	W
1750 French coach-and-four	2,500
1850 English steam locomotive	200,000
1900 The fastest American steam locomotive	1,000,000
1950 Powerful German diesel locomotive	2,000,000
2000 Electric motors of Japan's Shinkansen (high-velocity "Bullet" train)	13,000,000

controlled more than 200 kW; by 1900 his grandson in control of a transcontinental train traveling 100 km/h had at his disposal about one megawatt (MW) of steam power. Manually stoked locomotives could do about 120 km/h, while trains in Japan (Shinkansen) or France (trains à grande vitesse) have at their command electric motors with power rating approaching or even exceeding 10 MW. And another order of magnitude has to be added for air travel: pilots of the Boeing 747 (first flown commercially in 1969) or Airbus 380 (in commercial service since 2007) cruising 11 km above sea level have computerized control of more than 100 MW developed by four gas turbines mounted under the planes' wings.

Above are two comparative ladders of maximum power ratings (all numbers are in watts) for 250 years between 1750 and the year 2000, the first one (Table 6.1) for those prime movers that are commonly used in field work (starting with a value for sustained human labor; peak exertions lasting a few minutes can be an order of magnitude higher), the second one (Table 6.2) for prime movers used in land transportation of passengers (starting with a value for a horse-drawn carriage, the best means of overland travel before the emergence of mechanical prime movers).

## Efficiency of energy conversions

In this respect historians have not been nearly as guilty as the modern media, whose idea of dealing with technical advances is to personalize them by focusing on the lives of great inventors (preferably those of a heroic, or at least highly charismatic, cast such as Edison or Tesla) or innovators (Gates, Jobs) and to ignore the process of diffusing those inventions, turning them into acceptable commercial choices, and, most of all, relentlessly improving their often initially poor performance. Without the latter advances most modern energy conversions would play surprisingly marginal roles because they would be too expensive or too inconvenient to use.

If intercontinental flights were still powered by the first generation of commercial gas turbines introduced before 1958 they would consume 50 percent more kerosene. And if the owners of a new house built in California who installed, as is now common, more than fifty lights were to pay their electric bill in pre-1910 electricity prices, this would be at least forty times higher than today, due to the low efficiency of the thermal power plants that provided electric power a century ago. Actually, there is no better example to illustrate the long-term conversion efficiency gains than lighting, as no other common use of energy has seen such gains since 1750. Only a few technical improvements have had such a profound effect on human affairs as extending the day at will (and thus reading, writing, travel, and work in factories), banishing the night and making stairways, houses, and cities safer.

In 1750 candles remained the most convenient source of relatively clean but expensive indoor light. They came in a variety of sizes, qualities, and costs and their production eventually became a major manufacturing endeavor – but their wax-to-light efficiency remained dismal: in 1750 an inexpensive (and smelly) tallow candle converted just 0.01 percent of chemical energy in that animal lipid to light. Banishing the darkness thus remained nearly as inefficient during the time of the first encyclopaedists as it was more than one-and-a-half millennia before their time, when Marcus Aurelius wrote down his meditations among the Quadi on the Granua. The first improvement came with lights that used flammable gas made from coal, commercially produced since 1812, which multiplied those dismal efficiencies, with early lamps reaching about 0.04 per cent. In 1881, Edison's earliest carbon filaments converted only 0.15 percent of electricity to light.

By 1900 efficiencies of incandescent lights reached 0.5 percent with metal filaments and by 1950 lights with coiled tungsten filaments were closing on

Table 6.3 Efficiency of lights for indoor illumination

Date and type of light	Percent
1800 tallow candle	0.01
1850 coal gas light	0.04
1900 incandescent light bulb	0.50
1950 fluorescent light	10.00
2000 metal halide light	16.00

2 percent efficiency. But by that time the fluorescent lights, commercially available since the 1930s, were on the top, with efficiencies as high as 12 percent. This performance was eventually surpassed by low-pressure sodium lights that convert close to 30 percent of electricity to visible radiation (they have been used almost exclusively for outdoor city illumination and they impart characteristic yellowish hue to cityscapes at night) while the best indoor options (linear fluorescents and screw-in metal halide light bulbs) convert electricity to visible radiation with more than 15 percent efficiency (Table 6.3).

Even a small new American house will now have at least thirty lights (or no less than 2.4 kW of installed power) that can be turned on and off by a simple flip or push of a switch. Assuming a mixture of incandescent and fluorescent lights, the overall luminous efficiency will be close to 10 percent and providing the same amount of light (but, obviously, not with the same flexibility and convenience) would require about 10,000 standard paraffin candles. Logistics (and fire hazards) of lighting and extinguishing them aside, it would also be a very costly operation. As for the cost, William Nordhaus calculated that by the end of the twentieth century the true price (in constant monies) of illumination (the cost of the service rather than of the good, in this case a source of light) was four orders of magnitude lower (the actual ratio was about 0.0003) than it was in 1800. Similarly, Roger Fouquet's detailed calculation for the United Kingdom showed that, again in constant monies, light was roughly 6,000 times more expensive in 1750 than it was in 2000.

Perhaps the second most impressive illustration of improved conversion efficiencies is the performance of prime movers powered by combustion of fossil fuels. The first commercial models of such a machine, Thomas Newcomen's atmospheric steam engine, were extraordinarily inefficient, converting no more than half a percent of charged coal into reciprocating motion, and hence suited only for installation at coal mines where there was

Table 6.4 Top efficiency of internal combustion engines

Date and type of engine	Percent
1750 Smeaton's (improved Newcomen) steam engine	1.4
1800 Watt's improved steam engine	4.0
1850 Best high-pressure locomotive steam engine	6.0
1900 American triple-expansion steam engine	15.0
1950 Best low-speed marine diesel	45.0
2000 Large German diesel engine	51.0

no need for transporting the fuel. In 1750, John Smeaton managed to raise the efficiency above 1 percent and James Watt's subsequent famous improvements (patent of 1769) were only relatively impressive because the absolute efficiency of his machines remained pitiful, no better than 4 percent during the 1780s. But the gain was sufficient to site them more flexibly away from mines, particularly where the fuel could be brought by vessels. Only high-pressure steam engines did considerably better, surpassing 10 percent by 1850, and by the century's end the most efficient triple-expansion designs converted more than 15 percent of coal's thermal energy into useful mechanical energy.

That was a performance superior to new internal combustion engines, but those lighter and much more flexible machines were improved rapidly, particularly as Rudolf Diesel's inherently efficient high-compression engines began to conquer first shipping and then heavy land transport. In 1897 the final prototype of Diesel's new engine had thermal efficiency of almost 35 percent; before the Second World War the best machines surpassed 40 percent and by the year 2000 the massive diesels powering the world's largest container ships and oil tankers were the world's most efficient engines, converting just over 50 percent of energy in heavy fuel oil into propulsion (Table 6.4).

Their closest competitors in terms of efficiency are large gas turbines (jet engines) that have been powering modern long-distance commercial aviation since the late 1950s: in 1940 the first British and German prototypes converted less than 10 percent of kerosene into useful thrust. By the mid-1960s the first generation of jetliners had engines operating with 25 percent efficiency, and by the century's end gas turbines had thermal efficiencies of about 40 percent. These gains have made mass-scale air travel affordable: in 1950, at the beginning of the last decade of air travel powered by reciprocating



engines, the world's airlines logged 30 billion passenger-kilometers; in 2000 the total reached 2.8 trillion.

### Per capita consumption of useful energy

Supply of phytomass fuels and mechanical power (human and animal muscles, waterwheels and windmills – relatively common in some regions, rare or absent in others) remained low and stagnating for millennia. My reconstruction of fuel supply in Rome during the first two centuries of the Common Era came up with at least 10 GJ and possibly 15 GJ/capita. Estimates for average annual wood consumption in London of 1300 put this at 1.5 t or just over 20 GJ/capita, which means that the national average had to be below 20 GJ, not that different from the Roman energy consumption. Peasants on the deforested North China Plain burned annually no more than 10 to 15 GJ/capita of straw, roots, leaves, and grasses even during the early decades of the twentieth century.

Extraction of fossil fuels had multiplied the average supply, often in just one or two generations. Historical comparisons of energy use per capita rates are calculated after converting different fuels and other forms of primary energy (hydro, nuclear, geothermal, wind, and solar electricity) into a common energy denominator. The joule should be the preferred choice, but international statistics used to convert to a tonne of coal equivalent (tce, equal to 29 GJ, because it took the highest quality coal as the standard); but since the 1980s all of the most often cited sources (United Nations, OECD, the annual survey of world energy by British Petroleum) use a tonne of oil equivalent (toe, equal to 42 GJ or 1.45 tce).

British data show the average per capita use of primary energy rising from about 30 GJ in 1750 to just over 150 GJ in the year 2000, a relatively small (five-fold) multiple because the country already had a fairly high per capita use by 1750; the French use, reliably traceable since 1850, went from 20 GJ to 180 GJ in 2000, a nine-fold increase in 150 years. The multiple for Japan, a latecomer to modernization (begun only after the Meiji Restoration of 1868) was nearly eighteen-fold during the twentieth century (from about 10 GJ to just over 170 GJ/capita), and China's belated modernization was energized by going from just 1.5 GJ/capita (fossil fuels and hydroelectricity, excluding phytomass fuels) in 1950 to 35 GJ in 2000, a twenty-three-fold gain in just five decades (Table 6.5).

Impressive as these multiples may be, they obscure the real gains in the consumption of modern energy: because of the just-reviewed gains in typical

Table 6.5 Average annual consumption of primary energy (rounded to the nearest 5 GJ/capita and including all phytomass and fossil fuels and primary electricity)

	1750	1800	1850	1900	1950	2000
China	10	10	10	<15	<20	40
UK	30	60	80	115	100	150
France	<20	20	25	55	65	180
Japan	10	10	10	10	25	170
USA	<80	<100	105	135	245	345
World	<20	20	25	35	40	65

efficiencies of all common energy conversions, modern increases in per capita consumption of useful energy (that is, energy services including heat, light, and motion) have been far higher. Average US phytomass energy use in 1850 was very high, about 100 GJ/capita, compared to about 350 GJ/capita for all fossil and biomass fuels in the year 2000. But with typical mid-nineteenth-century combustion efficiencies at only about 10 percent, the useful energy in 1850 was just 10 GJ/capita while the overall energy conversion efficiency in the US economy reached 40 percent by the year 2000, delivering roughly 150 GJ/year of useful energy services, a rate nearly fifteen-fold higher than in 1850.

Fouquet's British data disaggregate the useful gains: for all industrial power (in 1750 it was delivered by human and animal labor, waterwheels, windmills, and a few steam engines; in 2000 it was mostly produced by electric motors and internal combustion engines) the multiple was thirteen-fold in 250 years; for heating (in 1750 a mixture of wood, charcoal, and coal; by 2000 mostly natural gas) it was fourteen-fold; for all passenger transport (in 1750 horses, carts, coaches, barges, ships; in 2000 cars, buses, trains, ships, and airplanes) it was nearly 900-fold; and lighting gains take the top place, as the trajectory from candles and oil lamps in 1750 to an assortment of electric lights in the year 2000 ended up with about 11,000 times more light per capita.

For China my best estimates are an increase from no more than 0.3 GJ/capita of useful energies in 1950 to about 15 GJ in 2000, a fifty-fold increase in just two generations. These multiples are the proper metric that reveals the achievements of modern civilization; they are behind large gains in productive capacity, they created comfortable interiors, they brought previously unimaginable mobility (of materials, goods, and people) and they generated so much light that the night-time satellite images show most of Western

Europe, eastern North America, and Japan as nothing but large continuous patches of brilliance.

### Maximum energies of weapons

Winning armed conflicts has not always required superior weapons: superior planning could decide the outcome even before a conflict began; nimble combat tactics could reverse an apparent rout into a sudden victory; well-timed betrayal could open the gates of fortified cities; coastal blockade could weaken and demoralize entire populations; epidemic disease and inclement weather could stop marching armies, and uncooperative winds could divert attacking fleets of sailing ships. But in most conflicts weapons made the difference. The damage they inflict is due to a sudden release of kinetic or thermal energy or their combined impact, and discharge of these energies is determined by the maximum capability of the prime movers that set them into action. When seen from this vantage point, all armed conflicts can be classified into four distinct periods: those powered by animate prime movers; those dominated by low-energy explosives; those relying on high-energy explosives; and those that deploy nuclear weapons.

All warfare from prehistory until the late Middle Ages used weapons powered solely by animate prime movers, overwhelmingly by human muscles. In close combat warriors used cutting (axes, swords) or piercing (daggers, lances) weapons, while injuring and killing from a distance relied on the piercing powers of spears and arrows launched by using bows or more powerful crossbows. The invention of gunpowder, with the explosive mixture first solidly documented before the end of the twelfth century in China, and its use reaching Europe just before the end of the thirteenth century, introduced a new powerful prime mover.

Although it is now classed as a low-velocity explosive, gunpowder's detonation speed was (depending on the composition of the powder, always dominated by  $\text{KNO}_3$ , usually about 75 percent of the mass, and always containing charcoal, but not always with added sulfur) at least 400 and up to 1,300 metres per second (m/s) while sword cuts had usual velocities less than 50 m/s. Gunpowder-propelled projectiles from field cannons and soon afterwards from ship guns raised the destructive power of weapons by an order of magnitude for personal weapons (1,000 J or 1 kJ for the best muskets), and by three orders of magnitude when launching projectiles from field or ship guns: in medieval cannons it imparted 50 kJ to

stone balls, in eighteenth-century cannons it gave iron balls kinetic energy of 300 kJ.

The destructive energy of weapons was greatly raised by the introduction of new, high-energy explosives (made by the nitration of cellulose, glycerine, phenol, and toluene) and by using those explosives to fill gun cartridges, and later bombs and rockets, that detonated on impact, with their explosive energy far surpassing the impact of their kinetic energy. Detonation velocity of new high-energy explosives kept on rising, from about 5,000 m/s for dynamite (Alfred Nobel patented his detonator in 1863) to 6,900 m/s for TNT (synthesized first in 1863) to 8,800 m/s for RDX (Royal Demolition eXplosive, made first by Georg Friedrich Henning in 1899), and to just over 10,000 m/s for ONC (octanitrocubane). Again, as with the escalation of destructive kinetic energy from arrows to cannon balls, there were destructive gains of explosive energies spanning orders of magnitude.

The first modern field gun, the French Canon 75 mm modèle 1897 (commonly known as “Le Soixante-Quinze”) fired shells filled with nearly 700 g of picric acid whose explosive energy reached 2.6 MJ. Perhaps the best-known gun of the Second World War was the German anti-aircraft Flak (Flugzeugabwehrkanone) 18, whose variant was also used in Tiger tanks; it fired shrapnel shells whose explosive energy was 4 MJ. But the most powerful explosives of the Second World War were the massive bombs which were dropped on cities. The most powerful bomb carried by the Flying Fortress (Boeing B-17) had explosive energy of 3.8 GJ. And during the last month of the Second World War, the United States dropped two bombs, at Hiroshima on August 6, 1945 and at Nagasaki three days later, that introduced the fourth category of weapons powered by nuclear fission, and later (since 1952) also by fusion.

Yet again, the multiplication of destructive energies took place, this time in record time. The Hiroshima bomb released 63 trillion joules (TJ) of energy, and in 1961 the Soviets tested above Novaya Zemlya their most powerful fusion bomb (Tsar Bomba) that released 209 quadrillion joules (PJ) of energy. The two superpowers had eventually amassed roughly 5,000 strategic nuclear warheads with the aggregate destructive energy of about 20 exajoules (EJ,  $10^{18}$ ), a sum so incredibly large that that lunacy actually served us well, preventing a global thermonuclear war that, all too obviously, nobody could win. The truly staggering progression of maximum destructive energy of explosive weapons during the twentieth century is shown in Table 6.6.

Table 6.6 Maximum energy of explosive weapons, 1900–2000

Date and type of weapon	J
1900 Picrite-filled shell from French 75 mm modèle 1897 gun	2,600,000
1940 Amatol/TNT-filled shrapnel from German 88 mm Flak	4,000,000
1944 The largest bomb carried by Boeing B-17	3,800,000,000
1945 Hiroshima bomb	63,000,000,000,000
1961 Soviet Tsar Bomba tested in 1961	209,000,000,000,000,000

### Energy in world history

These brief recapitulations of half a dozen key trends in the history of modern energy use make it clear why and how the combustion of fossil fuels and massive deployment of more efficient prime movers created a world in which material comforts, private consumption, mobility, and the overall quality of life are so fundamentally different from the pre-1750 era. Put another way, the epochal energy transition created what Nordhaus rightly called “tectonic shifts in output and consumption.” But if many fundamental whys and hows of modern history cannot be properly understood without appreciating the quantities and qualities of modern energy uses, arraying those accomplishments alone is no substitute for more complex perspectives: energetic determinism, as any other kind of reductionist explanation, is bound to mislead.

Many examples could be cited in order to illustrate the limits of energy-based determinism. With its enormous fossil fuel, nuclear, and hydroenergy resources, the USSR was a true energy superpower but it squandered that enviable patrimony, mostly because of its chronic economic mismanagement and a terribly inefficient quest for global hegemony. In contrast, post-Second World War Japan was not prevented by its lack of energy resources from becoming a great economic power, and, moreover, one with perhaps the world’s most efficient use of energy – but that was not enough to prevent the country’s protracted post-1990 economic and social decline. Another revealing contrast illustrating the limits of energy-based explanations is to note that for many decades the US per capita energy use has been twice as high as in the richest countries of the European Union, yet most of America’s quality-of-life indicators lag behind the European averages.

A third and final contrast, from yet another perspective, is the fact that the timeless intellectual accomplishments of the last quarter millennium – be they Mozart’s absorbing operas, Melville’s bold chronicling of a quest on

the high seas, Monet's colorful suburban scenes, or Michelson's ingenious measurement of the speed of light – had little to do with any specific consumption level or any particular qualities of energy usage that prevailed during the respective times of those achievements. Physically and thermodynamically, everything can be reduced to conversions of energy; but why and how we have deployed those energies has been always subject to human aspirations and fears. Considering both of these perspectives should bring a deeper understanding of history.

There is clearly an ambivalent link between energy and history. Energy sources and prime movers delimit the options of human history and determine the tempo of life, and, everything else being equal, thermodynamics requires that higher socio-economic complexity must be supported by more intensive flows of energy. And yet neither the possession of abundant energy sources nor their high consumption guarantees a nation's security, economic comfort, or personal happiness. Access to energies and the modes of their use constrain the options for our action but do not explain the sources of our aspirations and reasons for our choices, and do not preordain success or failure of individual societies at a particular time in history.

### Further reading

- Black, Brian C. *Crude Reality: Petroleum in World History*. Lanham, MD: Rowman & Littlefield, 2014.
- Crosby, Alfred W. *Children of the Sun: A History of Humanity's Unappeasable Appetite For Energy*. New York: Norton, 2006.
- Debeir, Jean-Claude, Jean-Paul Deléage, and Daniel Hémerly. *Les servitudes de la puissance: Une histoire de l'énergie*. Paris: Flammarion, 1986.
- Etemad, Bouda. *World Energy Production, 1800–1985/Production mondiale d'énergie, 1800–1985*. Geneva: Librairie Droz, 1991.
- Feng, Lianyong, Yan Hu, Charles A. S. Hall, and Jianliang Wang. *The Chinese Oil Industry: History and Future*. New York: Springer, 2013.
- Fischer, Ernst Peter. *Unzerstörbar: Die Energie und ihre Geschichte*. Berlin: Springer, 2014.
- Fouquet, Roger, and P. J. G. Pearson. "Five centuries of energy prices." *World Economics* 4:3 (2003), 93–119.
- Freese, Barbara. *Coal: A Human History*. Cambridge, MA: Perseus, 2003.
- Gustafson, Thane. *Wheel of Fortune: The Battle for Oil and Power in Russia*. Cambridge, MA: Harvard University Press, 2012.
- Högselius, Per. *Red Gas: Russia and the Origins of European Energy Dependence*. London: Palgrave Macmillan, 2013.
- Kander, Astrid, Paolo Malanima, and Paul Warde. *Power to the People: Energy in Europe over the Last Five Centuries*. Princeton University Press, 2014.

- Malanima, Paolo. *Energia e crescita nell'Europa preindustriale*. Rome: Studi superiori NIS, 1996.
- Le energie degli italiani: *Due secoli di storia*. Rome: Mondadori, 2013.
- Maugeri, Leonardo. *The Age of Oil: The Mythology, History, and Future of the World's Most Controversial Resource*. Westport, CT: Praeger, 2006.
- Melosi, Martin V., and Joseph A. Pratt. *Energy Metropolis: An Environmental History of Houston and the Gulf Coast*. University of Pittsburgh Press, 2007.
- Nordhaus, William D. "Do real-output and real-wage measures capture reality? The history of lighting suggests not." In Timothy F. Bresnahan and Robert J. Gordon, eds., *The Economics of New Goods*. University of Chicago Press, 1997, pp. 29–66.
- Nye, David E. *Consuming Power: A Social History of American Energies*. Cambridge, MA: MIT Press, 1998.
- Pratt, Joseph A., and William E. Hale. *Exxon: Transforming Energy, 1973–2005*. Austin, TX: University of Texas Press, 2013.
- Pratt, Joseph A., Martin V. Melosi, and Kathleen A. Brosnan, eds. *Energy Capitals: Local Impact, Global Influence*. University of Pittsburgh Press, 2014.
- Sánchez Ron, José Manuel. *Energía: Una historia del progreso y desarrollo de la humanidad*. Madrid: Consejo Superior de Investigaciones Científicas, 2012.
- Sieferle, Rolf Peter. *The Subterranean Forest: Energy Systems and the Industrial Revolution*. Cambridge: White Horse Press, 2001.
- Singer, Clifford. *Energy and International War: From Babylon to Baghdad and Beyond*. Hackensack, NJ: World Scientific, 2008.
- Smil, Vaclav. *Energy Transitions: History, Requirements, Prospects*. Santa Barbara, CA: Praeger, 2010.
- Energy in World History*. Boulder, CO: Westview Press, 1994.
- Sorensen, Bent. *A History of Energy: Northern Europe from the Stone Age to the Present Day*. New York: Earthscan, 2012.
- Weissenbacher, Manfred. *Sources of Power: How Energy Forges Human History*, 2 vols. Santa Barbara, CA: Praeger, 2009.
- Yergin, Daniel. *The Prize: The Epic Quest for Oil, Money and Power*. New York: Simon & Schuster, 1991.
- The Quest: Energy, Security, and the Remaking of the Modern World*. New York: Penguin, 2012.





PART II

★

POPULATION AND DISEASE



## Demography and population

MASSIMO LIVI-BACCI

### Three centuries and a ten-fold increase

Among the phenomena that have changed the face of the planet in modern times, population dynamics is perhaps the best known. We know with reasonable approximation the number of people and their geographic distribution; we know the changing patterns of growth and we can disassemble population change into its component parts. Over the last 300 years, terminating in 2010, population has increased ten-fold (from 0.7 to 7 billion), with a rate of change that has no parallel in the history of mankind: during the seventeen centuries after the beginning of the Common Era, world population probably increased three-fold, less than one-third the growth achieved in the much shorter period from the dawn of the Industrial Revolution to our days. But these numbers do not tell us the whole story. The impact on the planet of the average individual in 1700 was much smaller than that of her, or his, descendant in 2010: the first would live less than thirty-five years, the second twice as long. People in 2010 had at their disposal ten times as much energy and ten times the income, on average, as did people in 1700.<sup>1</sup> Comparing the beginning and the end of the historical period under review: there are ten times more persons who in each year consume ten times more than their ancestors of 1700, so that the potential impact of the 7 billion human beings now living on earth is an extraordinary multiple of the impact humankind had 300 years ago.<sup>2</sup>

- 1 These are orders of magnitude: for calories, see C. M. Cipolla, *The Economic History of World Population* (Harmondsworth: Penguin, 1962), pp. 45–46; for energy, see E. Cook, “Energy flows in industrial societies,” *Scientific American*, September 1971. As for real income, calculated as GNP per capita in PPP 1990 dollars, Maddison estimates, for the entire world, US\$615 in 1700 and US\$6,049 in 2000: see A. Maddison, *The World Economy: Historical Statistics* (Paris: OECD, 2003).
- 2 With a multiplicative model, the “potential” impact of mankind in the year 2000 would be  $2 \times 10 \times 10 = 200$  times the impact in 1700.

Population change can be interpreted as the result of the continuous confrontation and adaptation between the forces of constraint and the forces of choice. Forces of constraint are the environment, space and land, energy, diseases, and material resources. Forces of choice are the ability to modulate and control behaviors that have demographic consequences, such as entering into a reproductive union; having children; protecting and enhancing health with adequate nutrition, housing, and clothing; moving and migrating from one place to another. Over the last three centuries the forces of constraint have lost strength, and the secular poverty syndrome – poverty of material resources and poverty of knowledge – has gradually crumbled. On the other hand, the forces of choice have been enhanced and strengthened as the mechanisms of family formation – such as marriage, divorce, reproduction – have been brought under individual control. This process has shaped the course of population growth.

This trend shows several broad features. First, and foremost, is the enormous acceleration of the rate of growth, from about three per thousand population per year in the eighteenth century, to five per thousand in the nineteenth and thirteen per thousand in the twentieth century (Table 7.1).<sup>3</sup> Second, this rising global trend is not uniform among regions and continents: indeed in Europe and North America the rate of growth peaked during the nineteenth century, while in Latin America, Asia, and Africa it peaked in the twentieth. Third, the overall results greatly differ in the various continents: between 1700 and 2010, population multiplied by a factor of six in Europe, by a factor of ten in Asia and Africa, and by a factor of eighty in the Americas. And, accordingly, the geo-demography of the world has greatly changed: America housed slightly less than 2 percent of world population in 1700 and almost 14 percent in 2010; Europe's share peaked in 1900 at about one-quarter of world population, falling to 11 percent in 2010; Africa's share fell from 16 percent in 1700 to about 8 percent in the second half of the nineteenth century, bouncing back to 15 percent in 2010. Fourth, in the first decade of the twenty-first century the geographical variability of population dynamics is at its zenith: while Europe seems on a declining path, the population of Africa is growing more than 2 percent per year. Summing up: modern demography has been characterized by an extraordinary acceleration with a variety of geographical patterns, and this variety increases the smaller the scale of analysis.

<sup>3</sup> Population estimates for the eighteenth century are well founded for Europe and, to a lesser degree, for the Americas; they are based on valid indicators for Asia but are the result of little more than intelligent guesses for most of Africa.

Table 7.1 Population of the continents, 1700–2010

	Asia	Europe	Africa	America	Oceania	World
<b>Population, million</b>						
1700	437	121	107	12	3	680
1750	505	141	104	18	3	771
1800	638	188	102	24	2	954
1850	801	277	102	59	2	1,241
1900	921	404	138	165	6	1,634
1950	1,403	547	227	339	13	2,529
2000	3,698	727	819	840	31	6,115
2010	4,164	738	1,022	935	37	6,896
2050	5,142	719	2,192	1,052	55	9,306
<b>Percent distribution</b>						
1700	64.3	17.8	15.7	1.8	0.4	100
1750	65.5	18.3	13.5	2.3	0.4	100
1800	66.9	19.7	10.7	2.5	0.2	100
1850	64.5	22.3	8.2	4.8	0.2	100
1900	56.4	24.7	8.4	10.1	0.4	100
1950	55.5	21.6	9.0	13.4	0.5	100
2000	60.5	11.9	13.4	13.7	0.5	100
2010	60.4	10.7	14.8	13.6	0.5	100
2050	55.3	7.7	23.6	11.3	0.6	100
<b>Rate of increase (per thousand)</b>						
1700–1800	3.8	4.4	−0.5	6.9	−4.1	3.4
1800–1900	3.7	7.6	3.0	19.3	11.0	5.4
1900–2010	13.7	5.5	18.2	15.8	16.5	13.1
2010–2050	5.3	−0.7	19.1	2.9	9.9	7.5

Sources: 1700–1900: Elaboration on J.-N. Biraben, “Essai sur l’évolution du nombre des hommes,” *Population* 34:1 (1979), 13–25. 1950, 2000, 2010, and 2050: United Nations, *World Population Prospects: The 2010 Revision* (New York, 2011). For 2050: Medium variant projection

## Demographic systems

In order to gain a better understanding of modern population change, two interlinked and partially overlapping approaches will be followed. The first will attempt to outline the nature of the demographic systems prevailing in different parts of the world in the eighteenth century. Land, space, resources, food, microbes, and disease defined the narrow path along which pre-industrial populations grew. These populations established

demographic systems that, while often very different one from the other, shared a low rate of growth. A demographic system can be described as a relatively stable set of interdependent demographic behaviors – marriage, reproduction, survival, mobility – that determine the rate of population change. Different “combinations” of behaviors can produce similar rates of increase, as would happen for two populations, the first characterized by high mortality, early marriage, and high fertility; and the second marked by low mortality, late marriage, and moderate fertility. Systems are not fixed and change in response to the modifications of external constraints, such as the availability of new land, innovation and productivity, modifications in the incidence of disease, and the like.

The second approach presents the factors that determine a change or a transformation of a demographic system, therefore affecting population development. In modern times the gradual change in demographic systems has produced a transition from high to low levels of fertility and mortality, a process that goes under the name of “demographic transition,” and which has followed modalities and time patterns peculiar to each individual geographical and social setting. Although the eighteenth century marked the beginning of the modern acceleration of population growth, demographic systems around the world remained conditioned by a low expectation of life and by a high level of fertility that determined a rate of growth normally well below 1 percent per year, but that allowed for significantly different patterns in different societies.

Figure 7.1 shows several “isogrowth” curves. Each curve is the locus of those points that combine life expectancy (the abscissa) and number of children per woman (the ordinate) to give the same rate of growth  $r$ . Included on this graph are points corresponding to historical and contemporary populations. For the former, life expectancy is neither below twenty, as this would be incompatible with the continued survival of the population, nor above thirty-five, as no historical population ever approached that level until recently. For similar reasons, the number of children per woman falls between eight, almost never exceeded in normally constituted populations, and four, a minimum for populations not practicing birth control. The figure reports, left to right, four areas, three ellipses, and one round in shape; each of these areas represents the locus of populations belonging to different epochs. The first ellipse is the locus of historical populations before the Industrial Revolution and the modern diffusion of birth control. These populations fall mostly within a band that extends from growth rates of 0 to 1 percent, a space of growth typical of

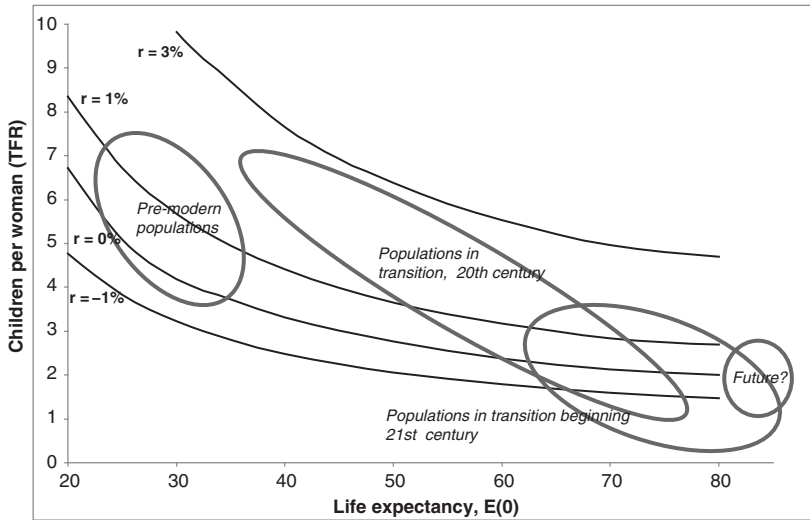


Figure 7.1 Isogrowth curves

pre-modern times. Within this narrow band, however, the fertility and mortality combinations vary widely, although constrained by the systemic poverty of resources and of knowledge. Denmark at the end of the eighteenth century and India a century later, for example, had similar growth rates, but these were achieved at different points in the space described: the former example combines high life expectancy (high for the times, about forty years) and a small number of children (just over four), while in the latter case low life expectancy (about twenty-five years) is paired with many children (just under seven).

The second ellipse contains the populations during the process of demographic transition in the nineteenth and twentieth centuries. The strategic space utilized, previously restricted to a narrow band, has expanded dramatically. Medical and sanitary progress gradually shifted the upper limit of life expectancy from the historical level of about forty years to the present level above eighty, while the introduction of birth control reduced the lower limit of average fertility to about one child per woman.

The third ellipse outlines the situation at the beginning of the twenty-first century, when countries with very high fertility (many in Sub-Saharan Africa) coexist with other countries (in Europe and Southeast Asia) with abnormally low fertility, close to one child per woman. It must be remarked that in the

much expanded space of the twentieth and twenty-first centuries there are populations with implicit growth rates of 3 percent, and other populations with negative growth rates of -2 percent; the former doubles in twenty-three years, and the latter declines by half in thirty-five years. Two populations of equal size experiencing these different growth rates will find themselves after thirty-five years (about a generation) in a numerical ratio of six to one! However, this is the space of populations in transition, unstable, and often with unsustainable paces of growth.

The fourth space, circular in shape, is the hypothetical region of the future, after the transition and at the end of a process of convergence, with an expectation of life above eighty, fertility between one and three children per woman, and potential rates of growth comprised between -1 and +1 percent. These populations could alternate phases of growth and decline.

### The eighteenth century

During the eighteenth century – the first phase of the modern acceleration of population increase – China and America attained a higher rate of growth (about 0.7 percent) than Europe (0.4 percent) and the rest of Asia (0.3 percent), while Africa stagnated or declined. Consider the case of China, whose population doubled between 1700 and 1800, and stagnated during much of the nineteenth century. A few contemporary authors have underlined the plasticity of the Chinese demographic system able to adapt to external constraints with a variety of mechanisms.<sup>4</sup> In the first place, infanticide permitted the regulation, at family level, of the number and gender of offspring. The incidence of infanticide – mainly of baby girls – was high, reaching 10 percent for the children of women belonging to the imperial lineage. The interpretation is that infanticide was a response to the fluctuations in living conditions and opportunities for family advancement.

Selective infanticide, and the higher mortality of surviving baby girls owing to child neglect, generated distortions of the marriage market in the form of a scarcity of eligible women; their scarcity was made worse by occasional polygyny and by the low frequency of remarriage among young widows. The result was that almost all women married very young, while men married substantially later and a high proportion remained

4 James Z. Lee and Wang Feng, *One Quarter of Humanity: Malthusian Mythology and Chinese Realities, 1700–2000* (Cambridge, MA: Harvard University Press, 1999).



unmarried. The proportion of women between age fifteen and fifty who were married was much higher in Asia than in Europe (typically 90 percent against 60 percent or less). This system of almost universal marriage for women was itself articulated in a variety of institutional forms, adaptable to different circumstances: beside the largely dominant patrilocal form (the new couple co-resided with the husband's family), there were alternative forms of uxorilocal type, forms of levirate marriage (for the very poor), polygyny (for the wealthy), and adoptions of baby girls who became spouses of a member of the adoptive family. The high proportion of married women was balanced by a level of fertility – within marriage – lower than in Europe. The total number of children born to women married at age twenty (and remaining married until age fifty) was around six, against 7.5 or more for European women. Birth intervals were longer than for European women and the age at birth of the last child lower. Not extraneous to the low marital fertility may have been a philosophical and religious tradition prescribing sexual continence for the spouses. Finally, adoption had a relevance in the Chinese family system and a proportion of children – up to 10 percent – were raised by an adoptive family. Adoptions were extended to adolescents and even adults. Combining marriage control, marital restraint, infanticide, and adoption, “Chinese individuals constantly adjusted their demographic behavior according to collective circumstances to maximise collective utility.”<sup>5</sup>

In the case of Japan, under the Tokugawa dynasty (1603 to 1868), the period before 1720 was characterized by an extension of cultivated land and a shift from extensive to intensive agricultural techniques; traditional social structures altered and large family groups, including many relatives and servants who were generally unable to marry, were broken up and many independent families established.<sup>6</sup> However, in the second part of the Tokugawa period, Japan's population stagnated, and in 1870 was about 35 million; the causes and mechanisms of this stagnation are the subject of considerable debate. There is definite evidence of intentional control of the “production” of children, not so much by delaying marriage but by the practices of abortion and infanticide, and of a “destructive” role played by the cities with regard to the rural population surplus. (Edo, today Tokyo,

<sup>5</sup> Ibid. p. 9.

<sup>6</sup> A. Hayami, “The population at the beginning of the Tokugawa period: an introduction to the historical demography of pre-industrial Japan,” *Keio Economic Studies* 4 (1966–1967); A. Hayami, *The Historical Demography of Pre-modern Japan* (University of Tokyo Press, 2001).

was the largest city in the world at the beginning of the nineteenth century.) Beyond infanticide and abortion, another interesting explanation for the slow population growth of the late Tokugawa epoch and the Meiji epoch that followed is the well-documented agricultural transformation that took place and led to an ever greater intensification of farming methods. This transformation improved the general conditions of rural life but also brought with it a notable increase in workloads for men and even more for women. This trend probably had a depressing effect on marital fertility, and may have offset some of the favorable demographic effects of long-term agrarian development.<sup>7</sup> Whatever the explanation for the demographic stagnation, Japanese society gradually discovered mechanisms to limit demographic growth as the expansion of cultivation encountered natural and insuperable limits.

The case of the Americas in the eighteenth century is extraordinary. Three major lines of development must be noted. First, the well-known catastrophic decline of the Native American population was coming to an end in the more densely settled areas (Mesoamerica, the Andes) and a recovery had begun. Second, the forced immigration of African slaves reached a peak during the century – almost 60 percent of the roughly 11 million slaves who were brought in chains to the American shores after 1500 arrived during the eighteenth century.<sup>8</sup> But that massive inflow was necessary in order to offset the very high mortality among slave populations, and their low fertility due to the many obstacles to marriages, unions, and family life. The demographic plight of the black population was particularly acute in the Caribbean and Brazil, where living and working conditions on the plantations were extremely hard. The third point to note is the growth of the European component of the population of the Americas because of immigration and also a high natural growth rate. Those Europeans who settled in rural areas, where large families were helpful to the success of immigrants, featured especially fast growth. High fertility, large families, and lower mortality than in Europe led to sustained rapid population growth. Mortality in French Quebec, for example, was lower than in France because of the favorable environment – lower density, which was

7 O. Saito, "Infanticide, fertility and 'population stagnation': the state of Tokugawa historical demography," *Japan Forum* 4:2 (1992), 369–381; O. Saito, *Gender, Workload and Agricultural Progress: Japan's Historical Experience in Perspective*, Discussion Paper Series A, no. 268 (Tokyo: Institute of Economic Research, Hitotsubashi University, 1993).

8 P. D. Curtin, *The Atlantic Slave Trade: A Census* (Madison, WI: University of Wisconsin Press, 1969).

less conducive to the diffusion of epidemics, better nutrition, and the selection for youth and good health resulting from migration. By the beginning of the nineteenth century, the indigenous population of the Americas had become a minority with less than 40 percent of the total population; the white component had surpassed one-quarter of the total and the black approached one-fifth, while the rest was composed of complex admixtures of the major ethnic groups.<sup>9</sup>

The impact that the heavy outflow of slaves had on the demography of Africa, whose population stagnated during the eighteenth century, remains uncertain. This outflow of enslaved was directed to the American shores, but to a lesser extent also northward and eastward to Mediterranean and Asian destinations. It is likely that the effects of the outflow, composed of millions of men and women in the prime of life, were notable and lasting, but quantitative evidence on African population history is too scarce to permit firm conclusions.

The course of European population during the eighteenth century is much better known than elsewhere: there are censuses, vital statistics, and many precise reconstitutions of demographic dynamics for many areas. Total population increased some 55 percent between 1700 and 1800, but with relatively large regional differences: Russia increased by 140 percent, northern and central Europe by 60 percent, France, Italy, and Spain by 33 percent.<sup>10</sup> Marriage was at the heart of different European demographic systems. In most of Europe marriage sanctioned the right to reproduce and births outside marriage represented a small proportion of total births. The unmarried state was almost everywhere an insurmountable obstacle to reproduction, hence marriage was the supreme regulator for births in societies that had not yet discovered and adopted voluntary control of fertility.<sup>11</sup> Fertility – the total number of children born to the average woman – would be affected by nuptiality: an increase (or a decline) in the mean age at marriage of two years would normally translate into one fewer child (or one additional one). And compared to a society in which all adults married, a society with one-fifth or one-quarter of adults never marrying would (all other factors remaining constant) produce one-fifth or

9 A. Rosenblat, *La población de américa en 1492: viejos y nuevos calculos* (Mexico City: Colegio de México, 1967).

10 M. Livi-Bacci, *The Population of Europe* (Oxford: Blackwell, 2000), p. 8.

11 The measure of fertility, in this essay, is the total fertility rate (TFR) or the mean number of children born to a cohort of women surviving until the end of the reproductive period. The expression “children per woman” is in this text equivalent to TFR.

one-quarter fewer children. The regulating function of marriage operated through the “modulation” of the age at marriage and through the exclusion from marriage of a varying proportion of each cohort. At the end of the eighteenth century, Europe was more or less divided by a line that ran from St Petersburg to Trieste.<sup>12</sup> West of the line, high age at first marriage (above age twenty-four for women and above twenty-six for men) prevailed, and a high proportion of adults never married (generally over 10 percent, often around 20 percent). The dominant system east of the line consisted of more or less universal marriage, average age at first marriage below twenty-two for women and twenty-four for men, and a percentage never married less than 5 percent. The geography was more complicated in the Mediterranean countries, with low marriage rates in some areas (Atlantic coast of the Iberian peninsula, alpine region, and central sharecropping areas in Italy and Sardinia), but higher rates elsewhere. The low nuptiality of Western Europe is often interpreted as the consequence of a long process of Malthusian adaptation – initiated after the late medieval acute plague pandemic – to increasing density and urbanization, scarcity of land, and increasing prices of basic staples. Other factors marked the demographic systems of Europe in the eighteenth century: for instance, much of the lowland Mediterranean region and the Balkans was plagued by malaria (which also affected a few areas of northern and central Europe) and mortality was significantly higher, and natural growth lower, than in malaria-free lands. Customary practices of childbearing and lactation, which varied across Europe, influenced both women’s fertility and child mortality. Long breastfeeding and late weaning would increase birth intervals, lower fertility, and enhance children’s chances of survival. As an example, in the second half of the eighteenth century, infant mortality in France was far higher than that of England (273 against 165/1000), corresponding to a difference in expectation of life at birth (other factors held constant) of four years.<sup>13</sup>

### Features of the modern demographic transition

It has become customary to define *demographic transition* as the process that has reduced mortality and fertility from the high pre-nineteenth-century

12 The seminal work on European nuptiality is J. Hajnal, “European marriage patterns in historical perspective,” in D. V. Glass and D. E. C. Eversley, eds., *Population in History* (London: Arnold, 1965).

13 Livi-Bacci, *Population of Europe*, pp. 113–114.

levels to the low and very low ones that prevail nowadays in Europe, America, and East Asia. With the Industrial Revolution the benefits of scientific knowledge and eventually of rising living standards provided the basis for declining mortality: towards the close of the nineteenth century expectation of life had reached fifty years in several countries of Europe and was rapidly increasing elsewhere in those parts of the world that we now define as “developed.”<sup>14</sup>

Conceptually, three overlapping sets of factors combined in this process of mortality decline. The first is an increase of per capita material resources, particularly food, and a remarkable decline of subsistence crises and associated mortality crises. This implied an improvement in the standards of nutrition, clothing, housing, hygiene, and of the associated ability to resist disease. The second is the gradual accumulation of knowledge about microbial transmission – particularly after Louis Pasteur’s (1822–1895) discoveries in the 1860s – and its popular dissemination through education and public policies, which enabled more individuals to avoid disease. The third step involved the development of vaccines and drugs able to prevent or cure disease, a phase that began (putting aside the isolated discovery of smallpox vaccination by Edward Jenner in 1796) in the last two decades of the nineteenth century.

The decline of mortality triggered the decline of fertility, through the diffusion of voluntary fertility control. At a very general level of explanation, the decline of fertility is a response to the changing balance of costs and benefits of children, determined by the changing priorities of society. Increasing costs were generated by the decline of infant and child mortality, that implied (at a given level of fertility) more surviving children per family. But increasing costs were also determined by urbanization and industrialization that required more investments in children, particularly in terms of education; and because mothers renounced gainful employment in the market in order to look after the children. Decreasing benefits

14 For the demographic statistics quoted here, and in the following pages, from 1950 to 2010, see United Nations, *World Population Prospects: The 2010 Revision* (United Nations: New York, 2011). Throughout the essay the expressions “rich” and “poor,” “developed” and “developing,” “More Developed Countries” (MDC) and “Less Developed Countries” (LDC) have been used as synonyms. Reference is made to the current classification of the United Nations, which among the “developed” countries includes Europe, North America, Japan, Australia, and New Zealand. Among the “developing” there are countries such as South Korea and others that are “richer” than many developed ones, but were much poorer in the recent past. Population data online: [http://esa.un.org/unpd/wpp/unpp/panel\\_population.htm](http://esa.un.org/unpd/wpp/unpp/panel_population.htm).

were the consequence of more complex techniques of production and of the shift from agriculture to manufacturing that delayed the age at which children became a source of income for the family. This broad scheme may be useful at a very general level of explanation, since many other factors – particularly those related to the changing sets of cultural values brought about by the Enlightenment, the French Revolution, radicalism, socialism, and other mass movements – combine in explaining the time patterns and geographical gradient of the fertility decline. Improved communication aided the spread of birth control practices from city to countryside, from the upper to the lower classes, and from the more central to the peripheral regions.

Population historians still debate why fertility control started in France, which in the latter part of the eighteenth century was still a rural society, and not in Britain. Despite its early industrialization, fertility control came to Britain only a century later. Many scholars believe that changes in values have prevailed over cost-benefit considerations. Moreover, the view that mortality decline is a necessary antecedent of the decline of fertility is also in dispute, considering the fact that cases where the contrary has happened appear to exist. But in general, during this long process of demographic transition, the rate of natural growth (the difference between the birth and death rates) – that was a fraction of 1 percent in high mortality regimes – tends to increase. The curve representing the falling mortality precedes in time that of the falling fertility, so that until both stabilize at a low level, the rate of growth tends to increase, reaches a peak, and then declines (Fig. 7.2). The duration of the transition, the steepness of the two curves, and the distance between them varied considerably from country to country. Population increase during the transitional phase is a function of these parameters. In the Western countries, where the modern decline of mortality started early and progressed slowly, in tune with the gradual accumulation of medical knowledge, the transition lasted longer than in the rest of the world, where the decline of mortality dates from the early or mid-twentieth century and has progressed rapidly, taking advantage – so to speak – of the capital of knowledge already accumulated.

### Mortality and fertility transition in the Global North

Mortality transition in Western countries came relatively slowly. Increasing agricultural productivity, the introduction of new crops, improved

### Demographic Transition Model

schematic representation

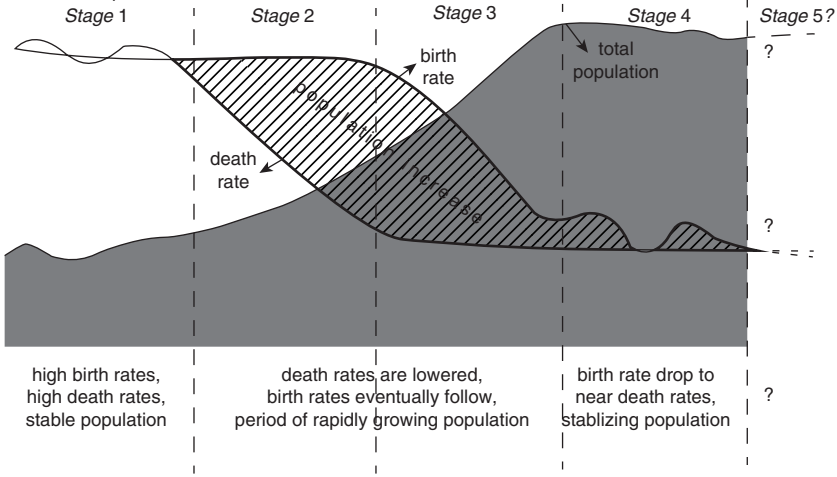


Figure 7.2 Demographic transition model

communication, and better functioning markets contributed to a decline in famines and subsequent epidemics. Crises did not disappear, as testified by the deadly Great Famine of Ireland 1845–1846, and by many other episodes, particularly in the periphery of Europe – Finland, Russia, the Balkans.<sup>15</sup> But mortality slowly declined. The date at which female life expectancy reached fifty (at which level a cohort's losses due to mortality between birth and the onset of reproductive age is still considerable, between 20 and 25 percent, and the “waste” of reproductive potential is about 30 percent) varies between 1861 for Norway and the 1930s for Bulgaria, Portugal, and the Soviet Union. The median date for European countries is 1903. Gains in survival peaked in the first half of the twentieth century, when about four or five months of life expectancy were added in every calendar year – despite the ravages of two world wars. By 1950, excluding the USSR, expectation of life in Europe had reached – for both men and women – sixty-seven years, and by 2010, eighty years.

In the eighteenth century marriage was a central piece of the European demographic system, as discussed earlier, but its function as a regulator of the

<sup>15</sup> A. J. Coale and S. Watkins, eds., *The Decline of Fertility in Europe* (Princeton University Press, 1986).

birth rate was of limited use in a society – such as the one that developed during the nineteenth century – where survival was improving and families sought better control over the number of their children. Only voluntary regulation of marital fertility would do, a behavior that in the eighteenth century was limited to the aristocracies and to urban bourgeois and merchant elites. As said before, marital fertility control became widespread in France in the last third of the eighteenth century, well before it did in the rest of Europe. The point at which marital fertility registered a 10 percent drop relative to a previous stable level (and without subsequent increases) is an empirical indicator that an irreversible decline has set in. This date is an important moment in the demographic transition and signals the substitution of the traditional system of fertility regulation (marriage) with a new one (contraception). It occurred first in France, in 1827, and last in European Russia and Ireland, in 1922 – almost a century later. For Belgium, Denmark, Great Britain, Germany, the Netherlands, and Switzerland the date falls between 1880 and 1900; for Sweden, Norway, Austria, and Hungary between 1900 and 1910; and for Italy, Greece, Finland, Portugal, and Spain between 1910 and 1920. A more detailed appraisal of the geography of the diffusion of voluntary fertility control reveals a process of decline which began in France and spread to the more developed regions of Europe, including Catalonia, Piedmont, Liguria, and Tuscany in the south; and England, Belgium, Germany, and Scandinavia in the center-north; subsequently it reached Eastern Europe and the other regions of southern Europe. The most peripheral regions (some areas of Mediterranean Europe, the Balkans, Ireland) and areas geographically central but culturally traditional (certain areas of the Alps) were the last strongholds of high fertility, gradually conquered in the middle of the last century.

The simple tenets of the demographic transition, that imply that after the secular fall of mortality and fertility some sort of stability and equilibrium is reached and maintained, do not fit a much more complex reality. Since the 1980s in much of Europe, and in Japan, fertility has fallen well below replacement, while mortality continues to fall at older ages.<sup>16</sup> Age structures have undergone profound changes and in many of these countries the number of persons above seventy years of age is higher than the number below age fifteen; the number of grandparents surpasses the number of grandchildren. Were it not for sustained immigration, populations would

<sup>16</sup> The expression “replacement” (for “replacement level”) signifies a situation in which a cohort of women is “replaced” by an equal number of daughters. In low-mortality populations this level corresponds (approximately) to 2.1 children per woman.



fall. Nor it is clear – in spite of a modest recovery of fertility in recent years – if and when a natural demographic equilibrium will be re-established.

During the long nineteenth century, the pace of migration and mobility quickened. In Europe the open and sparsely inhabited spaces that had previously attracted immigration and settlement had filled up. The “new worlds” outside of Europe that had received a steady trickle of migration over the previous three centuries had by now entered firmly into the European sphere of action – in spite of the dissolution of the American colonies – and were tied to Europe by institutional, cultural, religious, and linguistic affinities. Other worlds opened to migrants in Australia and South Africa, regions that were both rich in land and natural resources but sparsely populated and so open to European expansion.

To better understand the long-distance migration of nineteenth-century Europe, it will be useful to consider some of the demographic, social, and economic changes on which it depended. The first ingredient was rapid population growth, especially in the countryside. That growth combined with gradually increasing agricultural productivity to produce an ever-larger segment of underpaid or unemployed rural labor. At the same time, the industrial sector grew and so attracted and offered employment to those excess rural workers. Transport costs fell, due to railroads and steamships, making migration a more practical option for millions. Finally, the acceleration of global economic integration created a system that sought to achieve equilibrium without attention to national borders. These phenomena are all connected and none by itself (or joined to just one of the others) could have precipitated the mass migrations of the nineteenth century. And massive they were: between the beginning of the nineteenth century and the end of the First World War about 50 million Europeans emigrated across the oceans (from a population that in 1800 numbered approximately 188 million). This amounts to a rate several dozen times greater than the net migration that took place during any of the three previous centuries. This large and systemic phenomenon had an impact on the entire European continent, as well as the many lands to which Europeans went.

### The population of the Global South

As the rich countries of the world completed their cycle of population expansion, the poor countries embarked upon an extraordinary one of their own. The characteristics of this growth cycle are well described by the dry figures charting recent demographic growth in the so-called less-developed

Table 7.2 Population of less developed and more developed countries, 1900–2010

	Population (million)			Rate of increase (per 1,000)*			Percent distribution		
	MDC	LDC	World	MDC	LDC	World	MDC	LDC	World
1900	563	1,071	1,634				34.5	65.5	100
1920	654	1,203	1,857	7.5	5.8	6.4	35.2	64.8	100
1930	727	1,309	2,036	10.6	8.4	9.2	35.7	64.3	100
1940	794	1,473	2,267	8.8	11.8	10.7	35.0	65.0	100
1950	813	1,709	2,522	2.4	14.9	10.7	32.2	67.8	100
1960	916	2,106	3,022	11.9	20.9	18.1	30.3	69.7	100
1970	1,008	2,688	3,696	9.6	24.4	20.1	27.3	72.7	100
1980	1,083	3,368	4,451	7.2	22.6	18.6	24.3	75.7	100
1990	1,149	4,169	5,318	5.9	21.3	17.8	21.6	78.4	100
2000	1,189	4,934	6,123	3.4	16.8	14.1	19.4	80.6	100
2010	1,236	5,660	6,896	3.9	13.7	11.9	17.9	82.1	100

\* Note: Rate of increase over the previous date

Source: For 1900, author's estimates. 1920–2010, United Nations, *World Population Prospects: The 2010 Revision* (New York, 2011)

countries. The 1900 population of the poor countries, about 1 billion, had multiplied more than five-fold by the year 2012; in little more than a century, these countries have exceeded the expansion of the rich ones in the two centuries following the Industrial Revolution. That speed of growth is extraordinary. Between 1900 and 1920, the estimated growth rate of the poor countries was about 0.6 percent per year; this rate doubled for the period 1920–1950 (about 1.2 percent) and once again between 1950 and 1980 (2.3 percent) after reaching its zenith in the 1960s. In the 1980s the rate of increase fell to 2.1 percent, to 1.8 in the 1990s, and 1.5 in the first decade of the present century (Table 7.2). By contrast, the Western countries (Europe and its overseas projections) only rarely exceeded a rate of 1 percent during their two centuries of expansion. Since the 1950s the poorer part of the world has grown at twice that rate.

The reasons for this difference are, on the surface, rather simple, though the underlying reality is complex. In the rich world, the demographic transition came about slowly as a result of a gradual decline in mortality, followed eventually by a similar decline in fertility. Slow mortality decline was the result of an accumulation of knowledge (especially medical knowledge, which helped to bring infectious diseases under control) beginning at the end of the nineteenth century and continuing up to the present day. In the poor world, mortality levels remained high until recently. In 1950, for

example, average life expectancy in poor countries was still around forty. However, from the mid-twentieth century onward, the knowledge slowly accumulated by the rich countries was rapidly transferred to the poor ones and mortality dropped dramatically. Fertility, largely dependent upon slowly changing cultural factors, either did not follow the trend in mortality or else did so slowly after a lag, during which time population burgeoned.

As mentioned above, the apparent simplicity of this process is misleading. The poor world is divided into societies characterized by vastly different environmental, cultural, and political settings, and these differences are reflected in the demographic behavior of individual populations. Nor has the poor world been isolated from the rich, so that a degree of knowledge and technology transfer took place before the 1950s. Still, taking these factors into account, the fact remains that demographic change in the poor world in recent decades has on average proceeded rapidly as compared to the path previously followed by the rich (Table 7.3).

The demography of developing countries – around 1950 – was much more homogeneous than it is today, when variation is at its maximum as a consequence of the differing economic, political, and cultural developments of the last six decades. Taking into consideration the main regions, in 1950–1955, expectation of life ranged between thirty-eight and forty-five years, and in 2005–2010 between fifty-five and seventy-four. For fertility, in 1950–1955 the average number of children per woman was between 5.7 and 6.4, as against 1.6 and 4.6 in 2005–2010. India and China had the same fertility in 1950–1955 (6.1 and 6.0), but in 1990–1995 Indian women still had an average of 3.7 children, while Chinese ones were already below replacement (2.0). Thus what had been a consistent demographic regime across the poor world in 1900, showed wide variety by 2000.

The speed of development and of societal transformation is obviously at the base of the demographic revolution in poor countries. But also the modes of development have profoundly affected the nature of the demographic transition. For instance, with respect to mortality, Cuba, Chile, and South Korea had approximately the same high expectation of life (between seventy-eight and seventy-nine years) in the year 2000, but the real income per capita of Chile was four times that of Cuba and the real income of South Korea one-and-a-half times that of Chile. At the same date, the three countries also had the same very low fertility, well below replacement. Improvement in the satisfaction of basic needs – food, energy, water, sanitation – at a very low level of development, has been strategic for curbing very high mortality. So has been the option of investing in basic

Table 7.3 Demographic indicators of world population (1950–2010)

Region	Population (millions)		Annual rate of growth (%)		Birth rate per 1,000		Death rate per 1,000		Total fertility rate		Life expectancy at birth	
	1950	2010	1950–55	2005–10	1950–55	2005–10	1950–55	2005–10	1950–55	2005–10	1950–55	2005–10
World	2532	6896	1.82	1.16	36.9	20.0	18.7	8.4	5.0	2.5	47.7	67.9
More developed countries	811	1236	1.21	0.41	22.4	11.4	10.3	10.0	2.8	1.7	65.9	76.9
Less developed countries	1721	5660	2.09	1.33	43.5	21.9	22.6	8.0	6.1	2.7	42.3	65.9
Africa	230	1022	2.11	2.30	47.7	35.6	26.2	11.9	6.6	4.6	38.2	55.2
Eastern Asia	672	1574	1.91	0.47	39.4	12.2	20.2	7.3	5.6	1.6	46.4	74.0
South-Central Asia	507	1765	1.90	1.44	43.7	23.6	24.9	8.0	6.0	2.8	39.0	64.5
Southeast Asia	173	593	2.22	1.16	44.3	19.2	22.1	6.7	6.1	2.3	42.4	69.3
Western Asia	51	232	2.74	2.41	45.6	24.2	19.5	5.4	6.1	3.0	46.9	71.7
Europe	547	738	1.00	0.20	21.4	10.8	10.8	11.2	2.7	1.5	65.6	75.4
Latin America and the Caribbean	167	590	2.71	1.15	42.7	19.3	15.6	5.9	5.9	2.3	51.3	73.4
North America	172	345	1.71	0.91	24.6	13.7	9.4	8.2	3.3	2.0	68.7	78.2
Oceania	13	37	2.22	1.75	27.5	18.0	12.5	6.9	3.8	2.5	60.5	76.6
China	555	1341	1.99	0.51	42.1	12.6	22.2	7.2	6.1	1.6	44.6	72.7
India	358	1225	1.77	1.43	43.3	23.1	25.5	8.3	5.9	2.7	37.9	64.2

Source: United Nations, *World Population Prospects: The 2010 Revision* (New York, 2011)

health care. Policies have also had negative impacts, the most tragic example being that of the Great Leap Forward in China, which resulted in disaster and in the losses of tens of millions of lives in 1959–1961.<sup>17</sup>

Investment in human capital, improvement in the education of women, democratization of family relations, and encouragement to women's employment have all been conducive to a more careful control of fertility. So too have been the consequences of policies improving maternal and child health and facilitating access to contraception. These considerations show that, independently from the speed of the accumulation of material resources and of the development of services (which find a convenient synthesis in the indicators of income, such as GDP per capita), choices of policies have had a considerable impact on the demography of the developing world. Extreme coercive policies – such as those enacted in China after 1980 and centered around the “one child” model – have accelerated the fertility transition in countries that have imposed them.

In contrast, pro-natalist policies, whether in the Global South, where they have been rare, or in the Global North, where they have been less rare, have normally had weak impacts on human choices and national populations. The Soviet Union in Stalin's day, fascist Italy, imperial Japan, postwar France, and several other countries have experimented with various rewards for big families, but the masses typically disappointed their leaders. Romania in the mid-1960s was one brief exception, where state policies (the outlawing of all manner of birth control) doubled fertility from one year to the next. But exuberant fertility in Romania did not last. The stubborn resistance of modern populations to policies intended to make them reproduce faster shows the strength of the global (but not quite universal) trend towards smaller families, lower fertility, and slower population growth.

### The present and into the future

At the beginning of the second decade of the twenty-first century, the world demographic system is profoundly changed. The geo-demography of the world has undergone a deep revolution as summarized in Table 7.2: developed countries' share of the world population between 1950 and 2010 has fallen from 32 to 18 percent and that of Europe from 22 to 11 percent; the United Kingdom and Italy were listed among the ten most populous countries in 1950 but are below twenty-first place in the 2010 ranking; the

17 C. Ó Gráda, *Famine: A Short History* (Princeton University Press, 2009), p. 23.

population living in the urban areas, less than one-third of the world population in 1950, is now a majority; almost everywhere, population has concentrated along the coastal areas and low-lying valleys, challenging environmental equilibrium. Environmental constraints – pollution, the increasing concentration of greenhouse emissions, climate change, shortages of fertile soil and fresh water – are much stronger than in the past.

But nonetheless, individuals in most parts of the world have largely freed themselves from several of the biological, material, and social constraints of the past. Individuals have more freedom of choice about getting married (and dissolving marriages), having children, or migrating. Their health and longevity is much improved. This process is far from completed in many parts of the world, but today individuals are in a better position to take care of themselves, of their families, of their communities, than were their ancestors in 1900 or 1800.

Population change is strongly conditioned by forces of inertia, and projections give a reasonable idea of future developments for the next few decades. It is interesting to speculate about what the future might have in store: recent estimates are based on the experts' consensus that implies, for developing countries, a continuation of the decline of fertility (from 2.7 children per woman in 2005–2010 to 2.2 in 2045–2050) and a further improvement in longevity (from a life expectancy of sixty-six to one of seventy-four over the same period). For the developed countries, the projections call for a mild recovery of fertility and further gains in life expectancy. Global population surpassed 7 billion in 2012, and will reach 8 billion in 2025 and 9 billion in 2043; many long-term scenarios imply that the 10 billion mark will be reached at the close of the century. The rate of growth will decline from 1.3 percent in 2005–2010 to 0.4 percent in 2045–2050 – approximately the level of the eighteenth century, at the beginning of the modern cycle of growth. Practically the entire increase from 2010 and 2050 will accrue to the population of the developing countries, and the population of the developed ones will remain stationary: in 2050 their share of the total world population will have decreased to 14.1 from 17.9 percent in 2010. India will outstrip China as the world's most populous country in the 2020s. The most stunning development, however, is the expected further increase of Africa's share, from 14.8 percent in 2010 to 23.6 percent in 2050.

But, demographers' predictions notwithstanding, the future course of population is far from certain. The basic notion that all societies of the world are proceeding along converging demographic paths, conforming to the model of demographic transition, and heading towards a situation of

general equilibrium around a stationary or semi-stationary population is unrealistic.

First, it is unwise to assume that longevity will continue to grow. The Soviet sphere proved unable to maintain the general conditions (nutrition, health care) achieved in the three decades after the end of the Second World War. Indeed, the changing priorities in investment at the end of the Soviet regime, together with the social and economic aftershocks following the end of the USSR, provoked a serious deterioration of life expectancy after 1990, especially among males. On the other hand, a new emerging disease – AIDS – brought a decline of life expectancy in many Sub-Saharan areas in the 1980s and 1990s.<sup>18</sup> Thus unanticipated biological and socio-political developments undermined the expectations of further continuous progress in longevity. In Western countries and Japan, high life expectancy depends on universal access to high quality health care, and the proportion of GDP invested on health is everywhere on the rise (10 percent in Europe, 16 percent in the USA in 2009).<sup>19</sup> Inability of the system to keep up with rising costs would probably affect health and reduce longevity. In any case, the easy and most effective measures to prolong lives, such as sanitation and vaccination programs, are already widely in place. Further increase in life expectancy beyond what these measures have delivered will be more difficult, more expensive, and more reversible. Moreover, it is not impossible that devastating pandemics could outmaneuver public health systems, as HIV has done in southern Africa, and upset all demographic expectations. These considerations – biological, political, economic – suggest that further improvement in longevity should not be taken for granted.

Even more uncertain than longevity's trajectory is the future course of fertility. And fertility is the main driving force shaping aggregate population cycles. First, many developed countries during the last three or four decades have stagnated well below replacement fertility, normally understood as an average of 2.1 births per woman over her lifetime. Among the more populous countries, this is the case in Russia, Japan, Germany, Italy, and Spain, where around 2010 women had on average between 1.2 and 1.4 children. Perseverance of these fertility patterns implies rapid aging, numerical distortions between generations, population decline, and high demand for immigration. Many countries of the Global South are also already below replacement fertility (China most conspicuously, but also Iran, South Korea, Thailand, Vietnam,

18 Life expectancy at birth declined in the Russian Federation from 69.1 in 1985–1990 to 64.9 years in 2000–2005; in Southern Africa from 60.7 in 1985–1990 to 51.3 in 2000–2005.

19 OECD, *Health Data 2011* (Paris: OECD, 2011).

Brazil, Chile, and Cuba) and may follow the patterns set by the more developed societies cited above. Second, there are countries where fertility is very high, and voluntary control is still restricted to the wealthier strata of the population: in Sub-Saharan Africa women have more than five children on average (2005–2010). In other regions, an initial fertility decline has stalled at relatively high levels. Economic stagnation and reversals, inefficient social policies, abandonment of population policies supporting fertility regulation, and resistance to change of traditional family and community values, may all invalidate one of the main predictions on future trends. This prediction postulates that once fertility decline has begun, there is a sort of irreversible, self-sustaining process, until low levels, around replacement, are reached. This expectation could prove wrong, so that three or four decades from now, the anticipated convergence of reproductive behaviors – low fertility for all – may fail to take place.

Migration cannot affect future aggregate world trends. But it will certainly influence regional and national changes. Net flows of migrants appear to be on the rise. The current phase of globalization has different characteristics from that of a century ago. The economic integration among countries has proceeded at high speed: in 1950 the value of the goods exchanged in international markets was about one-tenth of global GNP, against one-quarter today. The human transfers among countries, regions, and continents are – in relative numbers – now lower than they were in the previous phase of globalization, however. This may sound surprising in the face of the palpable migratory pressures that are developing in the poor world, the growing absolute numbers of migrants, and the many efforts that the rich world is making to contain migratory pressures, but the larger total global population makes it so. In absolute numbers, migration is rising. The net flow of migrants from the poor world to the rich was 7 million in the decade of the 1960s; it approximately doubled to 13 million in the 1970s and 1980s, doubled again to 26 million in the 1990s, and has reached 34 million in the 2000–2010 decade.<sup>20</sup> In addition, there are enormous flows of temporary migrants to places that have high per capita incomes, but are not normally considered part of the “developed” world: Pakistanis and Bangladeshis, for instance, make up a large portion of the labor force in the wealthy Gulf states. There are also very large flows of people from one poor country to another: almost half of all emigrants from poor countries today reside in other poor countries.<sup>21</sup> In some ways, this is an expanded version of a phenomenon

20 United Nations, *World Population Prospects: The 2010 Revision*.

21 Dilip Ratha and William Shaw, *South–South Migration and Remittances* (Washington: The World Bank, 2007), p. 5.



with late nineteenth-century roots: during that period, tens of millions of Chinese and Indian migrants, who were largely excluded from richer countries, went to poor areas of Asia, Africa, the Caribbean, and Latin America. Some were merchants, but far more went to labor in mines or on plantations.

Migration patterns are so complex that predictions are extremely difficult to make. Flows and stocks of migrants are determined by the interaction of factors such as the differential growth of populations, divergences in standards of living, regulations and laws that influence migratory flows and their composition, proximity, and distance – in other words, demographic, economic, political, and geographic factors. Demographic pressures will continue: between 2010 and 2030, the population aged twenty to sixty is projected to increase 26 percent in the poor countries, and decline 7 percent in the rich ones; in Sub-Saharan Africa the increase will exceed 60 percent, while in large countries such as Russia, Japan, Germany, or Italy there will be a decline of 30 percent or more. On the other hand, economic inequalities between the rich and the poor world have widened: between 1950 and 2000 the gap in per capita real income between the Western economies (Europe and North America) and Asia, Africa, and Central and South America was US\$5,000–6,000, but in the year 2000 the gap had widened to US\$14,000–19,000.<sup>22</sup>

How the deepening of globalization, and persisting demographic and economic inequalities, will interact with migration policies, which in the last decades have become more restrictive and selective, is impossible to say. That adds further uncertainties to those presented by mortality and fertility. World population growth may, indeed, decelerate until a state of semi-stationary equilibrium is reached, as the consensus of demographers expects. But chances are those who anticipate uniform demographic behavior around the world, and expect all populations to converge upon a single demographic regime, will be surprised by the future. Inconsistencies and inequalities among nations, within nations, among regions and within regions, are likely to persist, even if not so pronounced in fifty years as today. Ecological, economic, political, and cultural conditions will vary, and in so far as demography represents human reactions to these variables, it will vary too. So while demography contains a good bit of inertia, and is easier to predict accurately than most other aspects of human existence, it in the end contains its share of uncertainties.

22 M. Livi-Bacci, *In cammino: Breve storia delle migrazioni* (Bologna: Il Mulino, 2010), pp. 87–88. This book is available in English as *A Short History of Migration* (London: Polity Press, 2012).

## Further reading

- Ahluwalia, Sanjam. *Reproductive Restraints: Birth Control in India, 1877–1947*. Champaign, IL: University of Illinois Press, 2007.
- Bardet, Jean-Pierre, and Jacques Dupâquier, eds. *Histoire des populations de l'Europe*, 4 vols. Paris: Fayard, 1997–1999.
- Bashford, Alison. *Global Population: History, Geopolitics, and Life on Earth*. New York: Columbia University Press, 2014.
- Chesnais, Jean-Claude. *The Demographic Transition: Stages, Patterns, and Economic Implications: A Longitudinal Study of Sixty-Seven Countries Covering the Period 1720–1984*. Oxford University Press, 1993.
- Cipolla, C. M. *The Economic History of World Population*. Harmondsworth: Penguin, 1962.
- Coale, Ansley J., and Susan Watkins, eds. *The Decline of Fertility in Europe*. Princeton University Press, 1986.
- Cohen, Joel. *How Many People Can the Earth Support?* New York: Norton, 1999.
- Connelly, Matthew. *Fatal Misconception: The Struggle to Control World Population*. Cambridge, MA: Harvard University Press, 2008.
- Crosby, Alfred W. *Ecological Imperialism: The Biological Expansion of Europe, 900–1900*. Cambridge University Press, 1986.
- Davis, Kingsley. *The Population of India and Pakistan*. 1951; New York: Russell & Russell, 1968.
- Demeny, Paul, and Geoffrey McNicoll. *The Political Economy of Global Population Change, 1950–2050*. New York: Population Council, 2006.
- Derosas, Renzo, and Frans van Poppel, eds. *Religion and the Decline of Fertility in the Western World*. Dordrecht: Springer, 2005.
- Fogel, Robert. *The Escape from Hunger and Premature Death, 1700–2100: Europe, America, and the Third World*. Cambridge University Press, 2004.
- Gillis, John R., Louise A. Tilly, and David Levine, eds. *The European Experience of Declining Fertility, 1850–1970: The Quiet Revolution*. Oxford: Blackwell, 1992.
- Gooszen, A. J. *A Demographic History of the Indonesian Archipelago, 1880–1942*. Leiden: KITLV, 1999.
- Greenhalgh, Susan. *Cultivating Global Citizens: Population in the Rise of China*. Cambridge, MA: Harvard University Press, 2012.
- Guilmoto, Christophe, and S. I. Rajan, eds. *Fertility Transition in South India*. London: Sage, 2005.
- Hayami, Akira. *The Historical Demography of Pre-modern Japan*. University of Tokyo Press, 2001.
- Hoerder, Dirk. *Cultures in Contact: World Migrations in the Second Millennium*. Durham, NC: Duke University Press, 2002.
- Klein, Herbert S. *A Population History of the United States*. Cambridge University Press, 2012.
- Lee, James Z., and Wang Feng. *One Quarter of Humanity: Malthusian Mythology and Chinese Realities, 1700–2000*. Cambridge, MA: Harvard University Press, 1999.
- Liu, Ts'ui-jung, James Lee, David Sven Reher, et al., eds. *Asian Population History*. Oxford University Press, 2001.
- Livi-Bacci, Massimo. *A Concise History of World Population*. Oxford: Wiley-Blackwell, 2012.

- A Short History of Migration*. Cambridge: Polity, 2012.
- The Population of Europe*. Oxford: Blackwell, 2000.
- Lutz, Wolfgang, Sergei Scherbov, and A. G. Volkov, eds. *Demographic Trends and Patterns in the Soviet Union before 1991*. London: Routledge, 1994.
- McEvedy, Colin, and Richard Jones. *Atlas of World Population History*. Harmondsworth: Penguin, 1978.
- Maddison, Angus. *The World Economy: Historical Statistics*. Paris: OECD, 2003.
- Manning, Patrick. *Migration in World History*. London: Routledge, 2012.
- Ó Gráda, Cormac. *Famine: A Short History*. Princeton University Press, 2009.
- Riley, James C. *Rising Life Expectancy: A Global History*. Cambridge University Press, 2001.
- Saito, Osamu. "Infanticide, fertility and 'population stagnation': the state of Tokugawa historical demography." *Japan Forum* 4:2 (1992), 369–381.
- Sánchez Albornoz, Nicolás. *The Population of Latin America: A History*. Berkeley, CA: University of California Press, 1974.
- Scharping, Thomas. *Birth Control in China, 1949–2000: Population Policy and Demographic Development*. London: Routledge, 2002.
- United Nations Population Division. *World Population Prospects: The 2010 Revision*, New York, 2011.
- World Population Prospects: The 2012 Revision*, New York, 2013.
- World Population to 2300*. New York: United Nations, 2004.
- Wrigley, E. A., and R. S. Schofield. *The Population History of England, 1541–1871*. Cambridge University Press, 1989.
- Zuberi, Tukufu, et al., eds. *The Demography of South Africa*. Armonk, NY: M. E. Sharpe, 2005.

## Population politics since 1750

ALISON BASHFORD

Why has “population” been political across time and place in world history? Perhaps because aggregations of humans, and the knowledge-systems that produce that aggregation, necessarily engage two fundamental human phenomena. The first is nothing less than life and death. Apparently the quintessentially natural states of being, in fact both fertility and mortality have been enduring objects of social, religious, and political intervention at scales that range from the intimate to the international. The second concerns food production, consumption, and distribution. This renders population a matter of land use, economic systems, and ultimately a key variable in energy use and reuse. Long analyzed as “biopolitics,” the regulation of population always entailed geopolitics as well, although tracing the connections and separations of these strands across time, and across political cultures, is not easy.<sup>1</sup> A sign of that complexity is the tendency towards scholarly separation: economic historians forget (more or less) that population questions impact on women and men completely differently; and historians of gender forget that modern population was as much the business of agricultural economists (for example), as feminist lobbyists for birth control or women’s health. To appreciate the many dimensions of population in world history, a new approach is needed; something like an integrated and global gendered political economy of population.

### Political economy and world population, c. 1750–1850

In late eighteenth-century China and England two scholars were independently observing population trends and land use around them. Hong Liangji

1 Alison Bashford, *Global Population: History, Geopolitics, and Life on Earth* (New York: Columbia University Press, 2014). See also William H. McNeill, *Population and Politics Since 1750* (Charlottesville, VA: University of Virginia Press, 1990).

(1746–1809) and Thomas Robert Malthus (1766–1834) were simultaneously thinking about their respective states, agrarian economies, and numbers of people over time. Population growth in China had been noted for much of the eighteenth century, for some a national problem signaled by rising grain prices.<sup>2</sup> Hong observed at the end of the century a disproportion between the capacity to reproduce – for any given population to double and double again – and the capacity to produce food: “The amount of land and the number of houses will always be deficient compared with the size of population. The number of families will always be excessive.” In his view, this mismatch would likely result in social disorder of various kinds, the politico-economic solution to which was state-led intensification of agriculture, the reclaiming of wastelands and the movement of cultivators onto that land, to Xinjiang and other frontiers.<sup>3</sup>

Malthus made a similar observation, although population changes in his own part of the world were perhaps less clear. He was the recipient of enduring scholarly debate about whether populations in Europe had fallen, risen, or stayed stationary over the long term. The question was alive because most seventeenth- and eighteenth-century European thinkers considered that wealth, the military, and state strength required large populations.<sup>4</sup> Malthus wrote against this intellectual trend, making his ideas unwittingly more aligned with Hong’s than his own European contemporaries. For European statesmen, high fertility was still generally deemed critical to offset high mortality. “Political arithmetic” was the calculation and analysis of births and deaths, comprehended through the method of “statistics,” endeavours aligned in etymology, as in fact to the interests of emerging states.<sup>5</sup> The census, too, was a tool refined by population-aware nation states and utilized for commercial intelligence and emerging insurance industries. Censuses were initiated in the United States from 1790, in France from 1836, and in Brazil from 1872, for example. Such modern national

2 Helen Dunstan, “Official thinking on environmental issues and the state’s environmental roles in eighteenth-century China,” in Mark Elvin and Ts’ui-jung Liu, eds., *Sediments of Time: Environment and Society in Chinese History* (Cambridge University Press, 1998), pp. 592–593; See also Ping-ti Ho, *Studies on the Population of China, 1368–1953* (Cambridge, MA: Harvard University Press, 1959); James Z. Lee and Wang Feng, *One Quarter of Humanity: Malthusian Mythology and Chinese Realities, 1700–2000* (Cambridge, MA: Harvard University Press, 1999), pp. 27–28.

3 “Five essays by Hung Liang-Chi,” in Leo Silberman, “Hung Liang-Chi: a Chinese Malthus,” *Population Studies* 13:3 (1960), 262.

4 Andrea Rusnock, *Vital Accounts: Quantifying Health and Population in Eighteenth-century England and France* (Cambridge University Press, 2002).

5 Ted McCormick, *William Petty and the Ambitions of Political Arithmetic* (Oxford University Press, 2009).

censuses followed from important early modern precedents: in China (population estimates, if not strictly censuses);<sup>6</sup> in European city states (notably Florence); and in New World colonies (notably the 1666 census of *Nouvelle-France*). In other and later colonial contexts, counting populations was an exercise in political knowledge. Historians have analyzed the census itself as an instrument of colonization, especially in the Indian subcontinent, where British colonial as well as Asian elites produced vast studies of land, people, food, and health over many generations.<sup>7</sup>

Hong's context was the taxation system, famine relief systems, and agricultural development of bureaucratically centralized Imperial China. Malthus's local context was also an agricultural economy, not yet a manufacturing one. He was similarly concerned with the high politics of welfare and taxation, poor laws and corn laws. Land – its quality, extent, and diminishing returns – for him marked the limit to growth. His “principle of population” claimed that population numbers oscillated, continuously, in relation to the availability of food (corresponding in large part to the amount of land). Malthus thought that even though the great expansions of land (especially in the New World) meant that populations could double, and quickly, there was ultimately and necessarily a diminishing return that would limit food production. At that point, population growth would be checked through human and natural regulation of the procreation and destruction of life. As a matter of regrettable fact, in his view, there would always be some part of any given population “in want.” Over the numerous editions of his famous *Essay*, Malthus came to insist that there were various ways in which the *number* of those in want of adequate food could and should be minimized, as matters of individual and family decisions and as matters of public policy.<sup>8</sup>

If Hong wrote about China (large enough), his contemporary Malthus wrote about the world. The *Essay on the Principle of Population* should be understood as an early world history. Malthus's intellectual tour of New Worlds and Old took him from New Holland to China and Tibet, from India to the Pacific Islands to Switzerland – detailing the economic stages that eighteenth-century stadial theorists had influentially nominated, from

6 P'ing-ti Ho, *Studies on the Population of China*.

7 Bernard S. Cohn, “The census, social structure and objectification in South Asia,” in *An Anthropologist Among the Historians and Other Essays* (Delhi: Oxford University Press, 1987); David Arnold, “Official attitudes to population, birth control and reproductive health in India, 1921–1946,” in Sarah Hodges, ed., *Reproductive Health in India: History, Politics, Controversies* (Hyderabad: Orient Longman, 2006), pp. 25–26.

8 T. R. Malthus, *An Essay on the Principle of Population*, 2nd edn (London: J. Johnson, 1803).

hunter-gathering to pastoral, agricultural, and commercial systems. In an attempt to demonstrate the universality of his principle, he gathered data from Pacific maritime voyagers' accounts, from Jesuit missionaries in New France and New Spain, from African explorers, and from American colonists.<sup>9</sup> He recapitulated information about numbers of people, land use and food customs, rituals and habits that affected life and death, including those that affected women as reproducers. Indeed, Malthus saw reproduction (and therefore relations between men and women) and economy as necessarily linked. No one will now agree with his method or mode of analysis, and few will accord in any straightforward way with his conclusions. Nonetheless, early political economy not infrequently took women, men, and reproductive cultures as a key object of inquiry. Malthus's stadial theorizing – for all its well-documented faults – was a distant but direct precursor to something like development economics.<sup>10</sup>

Several generations of nineteenth-century socialist (and later communist) thinkers considered population largely in opposition to Malthus's resignation that there would always be at least a small sector of any community in want. Early French utopians thought population growth would come under control within a socialist polity. Karl Marx considered overpopulation relative, and a result of a capitalist system that required a surplus labor force. Engels recognized to some extent the labor on the part of women required for the reproduction of populations, and the politics that were therefore structurally always in play. He was blind to other political implications, however, in particular the impact on indigenous people of the great geographic expansion and acceleration of European population growth. By his era, this was as unmistakable as it was unprecedented. The idea of a limit to growth, because of a limit to land, receded over the nineteenth century as industrial economies developed. But that was also a remarkable century in world history when the (new) world's grasslands turned into the world's grainlands, and populations boomed.<sup>11</sup> Engels was one of many who rejected ideas about limits to land, and thought vast uncultivated stretches of the world could, and would be brought into production and cultivation. The Mississippi Valley alone could accommodate the whole population of Europe "just in its

9 Alison Bashford, "Malthus and colonial history," *Journal of Australian Studies* 36:1 (2012), 99–110; Alison Bashford and Joyce E. Chaplin, *The New Worlds of Thomas Robert Malthus* (Princeton University Press, forthcoming).

10 John Toye, "Keynes on population and economic growth," *Cambridge Journal of Economics* 21:1 (1997), 8.

11 J. R. McNeill, "Population and the natural environment: trends and challenges," *Population and Development Review* 32 (2006), 183–201.

wasteland,” he claimed. Yet the Mississippi Valley was not wasteland, and it was in fact Malthus and not Engels who named the continuing cost for Native Americans of European land expansion and their astonishingly rapid population growth.<sup>12</sup>

### Colonialism, depopulation, and repopulation

Considered at a global level, the eighteenth- and nineteenth-century expansion of Europe was both demographic and geographic. Colonizers and colonized alike understood – and explicitly stated – that this process necessarily entailed the “extermination” or else the “assimilation” of indigenous peoples. Unless they were to become a labor pool, indigenous groups needed to be removed or incorporated, a spatial or a sexual solution to the phenomenon of settler-colonialism. In what some mid-twentieth-century demographers called early population transfers, US policy was to remove Indians across the natural borders of the Appalachian Mountains and then (in most cases) across the Mississippi River. In comparable and contemporary displacements, Aboriginal people in the British colonies in Australia (Van Diemen’s Land, New South Wales, Queensland) were removed by colonial governors to protectorates or reserves.

The new world epidemics that had killed so many people in the early modern era continued through the eighteenth and nineteenth centuries. Smallpox epidemics ravaged both colonists and natives, a defining part of North America’s revolutionary era.<sup>13</sup> In the same year as another revolution – 1789 – Aboriginal people in what is now Sydney were decimated over one dreadful year, just after the British established their penal settlement. This colonial-demographic history was rarely if ever a one-off event: it was intergenerational and prolonged. Polynesians and Melanesians, for example, named venereal disease as the woe brought by Europeans from the 1760s. Strongly affecting women’s fertility, when combined with diseases that killed outright – measles, influenza, smallpox – population decline in the Pacific islands began. In the Marquesas, for example, high mortality from respiratory diseases was still a major problem in the late nineteenth century. Combined with low fertility due to endemic sexually transmitted diseases, these islands

12 Friedrich Engels, “Outline of a critique of political economy” [1844], in Philip Appleman, ed., *An Essay on the Principle of Population* (New York: Norton, 2004), pp. 147–148.

13 Elizabeth Fenn, *Pox Americana: The Great Smallpox Epidemic of 1775–82* (New York: Hill & Wang, 2001).



suffered a major decline in population numbers until about the 1920s when fertility rates responded to new public health measures.<sup>14</sup>

Thus, while population growth was a world problem, population decline was a Pacific problem. Addressing it was part of Islanders' politics, and "decrease" was integrated into colonizers' political agendas too. A formal commission of inquiry was held in Fiji, in 1896, for example.<sup>15</sup> The Committee Appointed to Inquire into the Decrease of the Native Population was a fairly late expression of European concern about "disappearing" peoples, from Tasmanian Aborigines to the Beothuck in Newfoundland. The turn-of-the-century generation of colonizers worked hard to understand and prevent Melanesian and Polynesian decline, even as they actively cleared their land for new plantation economies.

There were two alternatives to the problem of depopulation. One was deportation of the colonizing populace (as happened over the long term in some decolonizing processes). The other was assimilation or incorporation of one population into another, involving sex, reproduction, and marriage between groups. In some contexts, mixed populations were more or less unproblematic, even a majority as in Spanish-speaking Latin America. Elsewhere they were more tenuously placed socially, for example in the Netherlands East Indies or in Portuguese India.<sup>16</sup> In other contexts, a self-aware third ethnicity emerged – the *Métis* of the Canadian prairies, for example, a politically separate national group that resisted federal Canadian government forces in 1869 and 1885. Over the later nineteenth and twentieth centuries, policymakers imagined "assimilation" in biological terms, and occasionally implemented as a formal policy the breeding of a minority population into a majority, so as to eliminate the former as a group.<sup>17</sup> All of these processes involved states and juridical institutions, as well as cultural institutions, pronouncing and ruling on sex and sexuality as population

14 Jean Louis Rallu, "From decline to recovery: the Marquesan population, 1885–1945," *Health Transition Review* 2:2 (1992), 177–194.

15 Nicholas Thomas, "Sanitation and seeing: the creation of state power in early colonial Fiji," *Comparative Studies in Society and History* 32 (1990), 149–170; Margaret Jolly, "Other mothers: material 'insouciance' and the depopulation debate in Fiji and Vanuatu, 1890–1930," in Kalpana Ram and Margaret Jolly, eds., *Maternities and Modernities: Colonial and Postcolonial Experiences in Asia and the Pacific* (Cambridge University Press, 1998), pp. 177–212.

16 Durba Ghosh, *Sex and the Family in Colonial India: The Making of Empire* (Cambridge University Press, 2006); Ann Stoler, "Sexual affronts and racial frontiers: European identities and the cultural politics of exclusions in colonial Southeast Asia," *Comparative Studies in Society and History* 34:3 (1992), 514–551.

17 Russell McGregor, "'Breed out the colour' or the importance of being white," *Australian Historical Studies* 33 (2002), 120.

policy. And all of the labor that created population – as states wanted it or regardless of official policy – was the reproductive labor done by women.

### Reproductive politics, c. 1850–1950

Political economists addressed women's reproductive roles within their foundational intellectual traditions, in large part through the long legacy of stadial theory that turned into anthropology. This brought New World societies into canonical Old World theories. Thus, for example, Engels's *Origin of the Family, Private Property and the State* was an extension of Lewis Morgan's anthropological work on the Iroquois. Engels, after Morgan, traced "ancient societies" – human progress from so-called savagery to so-called civilization – actively considering relations between women, men, and reproduction.<sup>18</sup> At least to this extent, this key Marxist text was far more of a piece with Malthus's *Essay* than Engels himself, or any political descendant, would want to admit.

Still, such studies fell well short of a thoroughgoing recognition of reproductive politics and the centrality of reproductive labor that was to revolutionize theory and practice on the relation between states and individuals in the century after 1850. It might fairly be claimed that a major element of global convergence over the modern period has been the rendering public – the business of state – what had previously been religiously, privately, or familially negotiated matters of reproduction, at least for most women and men. Sex became core business for all kinds of states, as both welfare and warfare slowly became massed and centralized endeavors.

While later twentieth-century feminists typically supported the publicizing and legalizing of birth control methods, this has not always been the case. Nineteenth-century feminists addressing an anglophone and francophone "woman question" tended to avoid the public discussion of birth control (even as most of them were likely practicing it, one way or another). However, an adjacent group of neo-Malthusian women and some socialist women, not incidentally aligned with secularist "freethought," were actively folding feminism and birth control into political economy. And so were many men. It is no coincidence that John Stuart Mill was one of the more influential neo-Malthusians of the nineteenth century, and he is a reminder that, while "Neo-Malthusian" is often attenuated to mean simply an advocate of contraception, it is far more correctly understood within a political economy tradition.

<sup>18</sup> Friedrich Engels, *The Origin of the Family, Private Property and the State* (1884; New York: International Publishers, 1972).

There was, unsurprisingly, a spectrum of positions vis-à-vis gender and political economy. For late nineteenth-century neo-Malthusian women, the active prevention of conception and childbirth would efficiently achieve two “freedoms” simultaneously: women’s autonomy and (they believed) the amelioration of poverty at familial, national, and global scales. For many neo-Malthusian men, interest in women’s fertility and birth control was only ever expedient. Another group of men emerging broadly out of a Malthusian tradition fiercely promoted birth control, family planning, contraception, and population control but without analyzing or sometimes even referencing women at all. For them – and ironically they are the least understood but arguably the most influential group in policy terms – birth control was a means by which food security was to be achieved and thereby political security. Any number of economists, ecologists, geographers, agriculturalists, plant geneticists, lawyers, and statesmen were major lobbyists for birth control, especially over the 1920s and 1930s. Geopolitics not gender politics drove their work, including the global geopolitics of migration.

That an economic rationale for birth control could and did function entirely outside of the feminist rationale for birth control explains the rise of neo-Malthusian organizations in many contexts, especially where standards of living were high on national and nationalist agendas. Indian elites formed Malthusian societies from the 1880s, as did groups in the Netherlands, Germany, Spain, and Sweden. By the end of the nineteenth century, this had acquired an explicitly internationalist politics. Neo-Malthusian thinkers linked population growth and differential densities across regions and continents to war; and so they linked population limitation (and population redistribution) to peace, even world peace, some grandiosely proclaimed. Women’s lobbying for birth control was not necessarily distinct from this tradition of political thought. Rather, they engaged in arguments about the limitation of population and the avoidance of war, economic argument about standards of living, and a redistribution of the world’s people from densely to sparsely populated regions. Thus, for example, when lobbyist Viola Kaufman wrote to the Secretary-General of the League of Nations in 1930, she pressed that birth control should be on its agenda as an international issue precisely because of its connection to war: “The League of Nations ignores birth control – the only thing that can permanently abolish war.”<sup>19</sup>

19 Viola Kaufman to Secretary-General, League of Nations, November 7, 1930, 11A 23738/305, Social Section, Box R3013, League of Nations Archive, Geneva.

The long-term disagreement between socialism and Malthusianism over the distribution of wealth as a cause of and/or solution to overpopulation and poverty is often noted, and certainly fueled bitter disputes. Lenin entered the early twentieth-century fray, defending individual women's rights to abortion and medical knowledge of contraception, but dismissing neo-Malthusian economic rationales for this as a solution to working-class poverty.<sup>20</sup> And yet there was a crossover between Malthusianism and anarchism–socialism that is frequently overlooked. Key neo-Malthusians such as Frenchman Paul Robin were members of the First International. And in a reversal of this connection, turn-of-the-century anarchist, Emma Goldman, attended the first meeting of the International Neo-Malthusians in Paris, 1900. This connection extended beyond an anglophone and francophone world. There was also a strong link between Malthusians and anarchists in Latin America. In Uruguay an anarchist group was established in 1907 that titled itself the *Comité Neo-Malthusiano del Río de la Plata*. In the same year the *Sección neo-Malthusiana de Cuba* was established, joining the now self-proclaimed International Neo-Malthusians. This counter-intuitive combination of Malthusianism and anarchism–socialism was the political tradition from which American Margaret Sanger's massively influential activism was born.<sup>21</sup> This explains the political provenance of the "birth strikes" around the First World War: direct action fused with Malthusian ambition. "Birth strike to avert world famine," Sanger cried in January 1920, a year in which many Europeans (for they were her target) were indeed hungry.<sup>22</sup>

The term and the idea of birth strikes came originally from French syndicalists.<sup>23</sup> It was also used then, as now, to refer to fertility decline that was going on from the 1880s entirely independently of public policy in France, the United Kingdom, the United States, Australasia, and parts of Eastern Europe, among other places: individuals and couples were clearly limiting reproduction, irrespective of clarion calls for national births (or, indeed, equally strident Malthusian calls to limit conception). Rather than policy shaping

20 William Petersen, "Marxism and the population question: theory and practice," in Michael S. Teitelbaum and Jay M. Winter, eds., *Population and Resources in Western Intellectual Traditions* (Cambridge University Press, 1989), pp. 77–101.

21 F. Ronsin, "Between Malthus and the social revolution: the French Neo-Malthusian movement," in J. Dupâquier, A. Fauve-Chamoux, and E. Grebenik, eds., *Malthus: Past and Present* (London: Academic Press, 1983), pp. 329–339.

22 Margaret Sanger, "A birth strike to avert world famine," *Birth Control Review* 4 (1920), 1.

23 Irene Dölling, Daphne Hahn, and Sylka Scholz, "Birth strike in the new federal states: is sterilization an act of resistance?" in Susan Gal and Gail Kligman, eds., *Reproducing Gender: Politics, Publics, and Everyday Life after Socialism* (Princeton University Press, 2000), pp. 118–148.

reproductive behavior, in this instance demographic trends themselves produced political reaction. Statesmen in all of these locations sought to increase fertility rates with pro-natalist policy, continuing to understand population growth (too often simply equated with high fertility) as a source of national or imperial strength.<sup>24</sup> Many Muslim nations were similarly pro-natalist.<sup>25</sup> The broad trend of pro-natalist policy was deeply tied to the emergence of welfare structures of modern states, underwritten by modern military demands. These typically manifested as positive incentives for births (motherhood allowances, baby bonuses, tax breaks), but in some states official campaigns to promote births were conducted negatively: the banning of literature on contraception (in France in 1920 for example), or the strengthening of laws against abortion. The politics of such welfare activity was ambiguous. On the one hand, the recognition of women's labor contribution was both actively sought by feminists and women's groups, and welcomed when it was incorporated into state structures, as health measures for example. On the other hand, such "maternal citizenship" could, and did, constrain women to that labor – to motherhood, broadly speaking.<sup>26</sup> Emphasizing the link between femininity and maternity has long been a double-edged sword, politically speaking. Modern, expert, state regulation of birth and child-rearing has diminished infant and maternal mortality. It has also brought women's fitness and unfitness, on any number of criteria, under direct scrutiny and intervention.

The politics of fertility decline as it played out in international and racial relations has received much historical analysis, and within many different national traditions. This does reflect late nineteenth-century anxieties about differential demographic trends across the world, in which "white" fertility decline was pitched against an apparent Asian fertility increase. Yet the debate then, and analysis of it now, have often been simplistic in demographic terms and sensationalist in political terms: fertility decline has been read as "depopulation"; the significance of mortality has been ignored; and the number of economists, feminists, biologists, and others who in fact welcomed fertility decline, has been seriously under-recognized. Many economists thought that the trend that was clearly underway in some nations both should and would become a worldwide phenomenon, over several

24 Anna Davin, "Imperialism and motherhood," *History Workshop* 5:1 (1978), 9–65.

25 Cyrus Schayegh, "Eugenics in interwar Iran," in Alison Bashford and Philippa Levine, eds., *The Oxford Handbook of the History of Eugenics* (Oxford University Press, 2010), pp. 449–461.

26 See essays in Seth Koven and Sonya Michel, eds., *Mothers of a New World: Maternalist Politics and the Origins of Welfare States* (London and New York: Routledge, 1993).

generations. For better or worse, a “league of low birth rate nations” was imagined by an interwar cadre of population experts. They were at pains to explain this as an inclusive and aspirationally global “league,” not an exclusive one. But the presumption of Western leadership was understood, and subject to the critique of anti-colonial East and South Asian commentators.

### Geopolitics: population and global space

Imperial German scholars and statesmen had been deeply interested in population density – overpopulation – before and during the First World War. But rather than systematize any program of population limitation, they argued for more land to inhabit. Spurious in population and political terms, the density argument, the push for *Lebensraum*, certainly became common as a mode through which to discuss international relations and foreign policy. Statesmen linked people and land again, especially with the rise of fascism. In Italy from 1922, Mussolini’s “Battle for Land” was accompanied by a “Battle for Births,” a policy position that involved his own *volte face* from advocacy of, to bans on, birth control. Any number of pro-natalist policies were put in place, accompanied by land expansion strategies, from the reclaiming of domestic marshlands to the invasion and claiming of Ethiopia. In Japan, statesmen justified the invasion of Manchuria in the light of their own contained insular living space, the need to import rice for the first time, and population density. This contrasted with Manchurian space and bounty, wasted, they pronounced, by Chinese settlers. And in the Third Reich, the apparent vitality of Germans was bolstered by policies that twinned the promotion of reproduction with eastward territorial expansion. The “living space” argument was at one level particular to German Imperial, Weimar, and then Nazi regimes, and later picked up by Fascist Italy and Imperial Japan. At another level it was a twentieth-century expression of the linked demographic and geographic expansion that had characterized earlier European colonialism as well as US Manifest Destiny arguments about expanding westward frontiers – space to be cleared, then cultivated and populated by vital Americans.<sup>27</sup> The connections are not interpretive; they were made commonly enough at the time, if for many different political purposes. Indeed the *Lebensraum* argument that came to characterize German fascism was not dissimilar to positions commonly held by US, British, Indian, and

27 Neil Smith, *American Empire: Roosevelt’s Geographer and the Prelude to Globalization* (Berkeley, CA: University of California Press, 2003).

Australasian demographers, economists, or geographers: that overpopulated countries did have a claim to land, a need for “territorial outlets,” and that a co-operative world population policy required the redistribution of people and land in the interests of peace. The same experts were likely to oppose the proliferation of immigration restriction acts. Especially South Asian demographers and economists argued that immigration laws hindered a healthy dispersal of people, especially into under-cultivated lands. What distinguished the fascist version was the justification of war as the means by which that redistribution might be achieved.<sup>28</sup>

In the 1920s and 1930s population “quality” as well as quantity engaged a spectrum of states and non-governmental associations. Eugenics was a transnational phenomenon whose aspiration to improve populations went to the core of the relationship between modern citizen and state. Most eugenic policies addressed mental and physical disability, enforcing or encouraging certain people’s non-reproduction through segregation or sterilization or other methods of birth control. Experts typically rationalized such policies through both fitness and efficiency imperatives: especially in the Depression years, arguments for the sterilization of people with disabilities were framed increasingly in terms of public cost. States presented their pro-natalist policies often in eugenically inflected terms. Formally or informally favoring the reproduction of the “fit,” they adjudicated on criteria that ranged from racial qualification to mental and physical capacity, to intelligence and family pedigree. The ambitions and reach of eugenics were flexible enough to find expression in all kinds of polities: social democratic, liberal, fascist, communist. It ranged from political groups that sought compulsory measures, to those for whom compulsion was anathema, and from societies dominated by peasant populations to those that were highly urbanized and industrialized. Eugenics programs proliferated across the world, from China to Japan to Eastern Europe to Switzerland.<sup>29</sup> It was thus a phenomenon linked to a period – to high modernity – as much as to a particular polity.<sup>30</sup>

Eugenics was certainly a nationalist endeavor, an applied science that found a natural home in national socialism. But it was also internationalist, anti-statist, and even cosmopolitan, a social and political project that easily incorporated and even stemmed from, the species-level and global scale tradition within Malthusian thought. A self-consciously international eugenics emerged. The International Federation of Eugenic Organizations

28 Bashford, *Global Population*, chapter 2.

29 See chapters in Bashford and Levine, eds., *The Oxford Handbook of the History of Eugenics*.

30 Marius Turda, *Modernism and Eugenics* (New York: Palgrave Macmillan, 2010).

(IFEEO) was anglophone and Protestant-dominated. Its counterpart was a transnational federation of Latin eugenics societies that linked southern Europe and Central and South America, including organizations and delegates from Italy, Spain, Argentina, Brazil, Portugal, and Mexico.<sup>31</sup>

Opposition to eugenics was also transnational, especially in its Roman Catholic incarnation. The Latin International Federation of Eugenic Societies indicates how prevalent eugenics was in many Catholic-dominated countries, with the Vatican increasingly concerned. The 1930 papal *Casti Connubii* was a formal condemnation of sterilization as well as fertility control more generally, including the availability, promotion, and liberalization of information on contraception. The encyclical reaffirmed the Church's scriptural opposition to abortion, but in fact vanishingly few commentators – anywhere on the population continuum – advocated the legalization of abortion in these years. Birth control lobbyists tended to argue *for* contraception as a way of limiting what they tended to agree was a morally problematic act. States across the world almost unanimously agreed; that is, notwithstanding the clear evidence that abortion was practiced constantly, few policymakers, statesmen, or women advocated legalization until after the Second World War. The exception was the Soviet Union, which instituted free and legal abortion between 1920 and 1936, stricter medical indications coming into play between 1936 and 1955, and full legalization thereafter.<sup>32</sup> After 1945 it was Japan's Diet that legalized abortion, part of a new Eugenics Law (1948).<sup>33</sup> Counter-intuitively, then, the liberalizing trend of postwar abortion law so connected, discursively and legally, to liberal individualism in the West, had one origin in Japanese eugenics and another in Soviet population policy.

### Three worlds, c. 1945–1968

Economists had long studied world trends in fertility and mortality, with census data that were good for some regions and poor or even non-existent for others. European demographic history was the main focus for European and non-European economists, both the massive population growth of the nineteenth century and the localized fertility declines. From the late 1920s

31 M. S. Quine, "Racial 'sterility' and 'hyperfecundity' in fascist Italy: the biological politics of sex and reproduction," *Fascism* 1 (2012), 92–144.

32 David M. Heer, "Abortion, contraception, and population policy in the Soviet Union," *Demography* 2 (1965), 531–539.

33 Tiana Norgren, *Abortion Before Birth Control: The Politics of Reproduction in Postwar Japan* (Princeton University Press, 2001).



demographers conceptualized changing patterns, globally and regionally, in terms of successive phases or cycles, from high fertility and high mortality to low fertility and low mortality. This was, in many ways, updated stadial economic and social theorizing with fertility and mortality at its core. The four stages of eighteenth-century universal history, however, turned first into two, and then into three, worlds. The use of “occidental” and “oriental” world divisions remained common, even in mid-twentieth-century population studies. But the terms were morphing into the fresher “East” and “West,” still imagined as the quasi-stadial progression (development) toward “civilization” and, by implication, “Westernization.” Demographers and economists were fast coming to see the demographic state of low mortality and low fertility as the defining feature of civilization and Westernization. Another way of dividing the world into an economic two, common after the Second World War, was to describe one half as living in poverty and subject to the forces Malthus had described; and the other half, having industrialized or otherwise planned its way out of the Malthusian trap, with a controlled population and a higher living standard. Latterly, this version of a Cold War “East” and “West” became re-imagined as a Global South and North. Indeed it was largely via population thought that the antique cardinal directions became such a common way of delineating an economically divided world.

Perhaps more enduringly, the world came to be divided into the three main stages of “demographic transition”: first, those industrialized, modernized, populations/nations whose fertility rates had dropped, apparently a response to low mortality rates; second, those where mortality had declined but where high fertility persisted (resulting in significant population growth); and third, those countries in which there was little growth because both mortality and fertility remained high. By 1950 the idea had taken hold across many sectors that active government promotion of family planning would move countries from the third stage into the first stage, and quickly. It could, and, as key proponent Frank Notestein came to believe, should, happen in advance of “modernization.”<sup>34</sup> Notwithstanding a common critique of demographic transition, the idea was authoritative over such a long time because so many people *wanted* just this kind of progress (modernization). Yet even at the outset there were empirical puzzles that just did not align. Notestein himself observed nineteenth-century fertility decline in decidedly

34 Simon Szreter, “The idea of demographic transition and the study of fertility change: a critical intellectual history,” *Population and Development Review* 19:4 (1993), 659–701.

un-industrialized rural France, and demographic historians since have strongly questioned “natural” fertility (high fertility) for other pre-industrialized societies, China in particular.<sup>35</sup> In any case, out of this intellectual and political genealogy of population thought came the enduring division of the world into three. In a 1952 article, “Three worlds, one planet,” French demographer Alfred Sauvy drew directly on the transition idea in creating a further idea: the “third world.” He wrote that the third world, like the Third Estate, “wants to be something too.”<sup>36</sup>

Theories about demographic transition towards low fertility and low mortality rapidly came to frame nascent national and international population policy.<sup>37</sup> If Europe’s population had preoccupied many demographers before the Second World War, afterwards attention was directed mainly to China, Japan, Latin America, and India, each in completely different political and demographic circumstances. Japan was under US occupation, but a nominally independent and democratic Diet actively initiated and incorporated policies to contain population growth, the nature and extent of which would have been unacceptable in the United States itself: contraception education, legal sterilization, and legal abortion. The rationale was to stem food scarcity and grow an economic base, but women’s health arguments that had been in abeyance in the Japanese public sphere since the 1920s returned, bolstered by the new female suffrage. Japan’s fertility rate was declining with astonishing speed.<sup>38</sup> At the same time, international population organizations, including the new United Nations Population Division headed by Princeton University’s demographer Notestein, watched China carefully. Then in civil war, China’s massive population had long been of interest but its demographic trends were nonetheless unclear. Just one of the international ramifications of the 1949 defeat of republican nationalists by Mao’s communist forces, was the quite sudden shift from the idea of global population control having an internationalist agenda, to it having an anti-communist one. Steadily over the next two decades, First World lobbyists, economists, and politicians engaged with the long-standing arguments about population and peace, reshaped to fit a Cold War logic: fertility control would ensure food security, raise living

35 Lee and Feng, *One Quarter of Humanity*, pp. 84–99.

36 Alfred Sauvy, “Trois mondes, une planète,” *L’Observateur*, August 14, 1952, 14.

37 John May, *World Population Policies: Their Origin, Evolution, and Impact* (Dordrecht: Springer, 2012).

38 Deborah Oakley, “American–Japanese interaction in the development of population policy in Japan, 1945–52,” *Population and Development Review* 4:4 (1978), 619.

standards, and head off further communist expansion. This was the beginning of a new generation of global demographic geopolitics.

China itself was now off-limits for a First World foray into Third World population control. This was part of the reason why India materialized as the main stage. A more significant reason was that prime minister Nehru's new government was strongly inclined to economic and social planning, part of which became "family planning." It immediately incorporated population policy into its planned economy, written into India's first, and subsequent, five-year plans.<sup>39</sup> Nehru was feted by sections of the international community (led by Swedes and Americans) for doing so, indeed for being the first government to implement a policy of population control.<sup>40</sup> For the formal international sector – the United Nations – however, active endorsement of family planning was still blocked by the curious alliance of Catholicism and communism. Even minor World Health Organization (WHO) ventures into birth control research were closed down by the UN Assembly, and the bid for a World Population Conference was suppressed. In United Nations circles the politicizing of world population growth was most admissible within the Food and Agriculture Organization, where arguments about limited global food supply, famine, and world food policy kept the possibility of actively intervening alive as a vague possibility for the future. By contrast, non-governmental bodies – the Ford Foundation, the Rockefeller Foundation, the Carnegie Foundation, as well as lobbyist and research coalitions like the International Planned Parenthood Federation (established in 1952 in Delhi) – pressed on with the idea that population control was the best prophylactic against a threatened communist global future.

The strong interwar link between the idea of population limitation, internationalism, and pacifism (since differential population density was so strongly linked to war) thus turned inexorably into anti-communism. US millionaire Hugh Moore, whose Fund published the first "population bomb" pamphlet in 1954, advocated voluntary sterilization as the key means by which the spread of communism could be combated. Anti-communist after the Second World War, before it he had been an active internationalist in the Malthusian tradition. It was an easy transition, a common one in this milieu, and for a time, a successful one. In the late 1960s, population control

39 Shanta Kohli Chandra, *The Family Planning Programme in India* (Delhi: Mittal, 1987), pp. 51–68.

40 Matthew Connelly, *Fatal Misconception: The Struggle to Control World Population* (Cambridge, MA: Belknap Press of Harvard University Press, 2008), pp. 115–154.

as anti-communism was formally backed by the US government, in the form of aid for family planning. In the Reagan years this was shut down.<sup>41</sup>

Accompanying this growing alignment of population control, aid, and foreign policy over the 1950s and 1960s was the so-called Green Revolution on the one hand, and an expansion of research on contraception on the other. The latter extended interwar (and prewar) feminism – the women’s health and women’s autonomy argument continued to be presented by Margaret Sanger, Dhanvanthi Rama Rau, Shidzue Katō, and others, but to a far more receptive international public sphere. And yet overall, groups like the International Planned Parenthood Federation are best understood as coalitions of people who together backed birth control, but for very different reasons: ecologists, economists, geographers, agricultural scientists, as well as feminists. This is why so many men were involved over the 1960s. Some embraced and promoted the idea of the need for reproductive control for the sake of women’s autonomy, but many more were solely interested in food security related to anti-communist agendas. As in the 1920s and 1930s, for many leading men, birth control was a means, more than an end in itself.

The 1960 release of the much-anticipated “pill” from its controversial Puerto Rican trials onto the world market did represent a new reproductive freedom for many women.<sup>42</sup> By the 1970s, its use and marketing in the West traded on a new kind of freedom: less married women’s freedom to space births, and more young, single women’s freedom to have sex without pregnancy. Outdated nineteenth-century “liberty” had turned into up-to-the-minute, even revolutionary, “liberation.” In the West, the very idea of family planning was becoming highly individualized, its connection with food security and political security cleaved into popular culture, though retaining this economic significance for national planners. In developing countries, however, some states were limiting individual freedoms to secure population-level changes, and the technology was not the new pill at all. As part of the Indian “emergency period” between 1975 and 1977, government intensified pre-existing infrastructures and laws for the sterilization of both men and women. The practice was never compulsory, though strong incentives and disincentives rendered it effectively a forced program for many

41 Thomas Robertson, *The Malthusian Moment: Global Population Growth and the Birth of American Environmentalism* (New Brunswick, NJ: Rutgers University Press, 2012), pp. 201–220.

42 Lara Marks, *Sexual Chemistry: A History of the Contraceptive Pill* (New Haven, CT: Yale University Press, 2001), pp. 101–110. See also Laura Briggs, *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico* (Berkeley, CA: University of California Press, 2002).

Indian men and women. Sterilization in India came to be a highly controversial reference point across the world, and remains so.

At much the same time, the People's Republic of China officially instituted family planning in its One-Child Policy. Seeking to stabilize population growth, the Communist Party authorized its own interventions into reproductive conduct, without subscribing to, or being seen to subscribe to, long-rejected Malthusian economic theory. It rehabilitated the work of economist Ma Yinchu for the purpose, whose "New Population Theory" had been censored in the late 1950s, a period when Mao Zedong was strongly pushing pro-natalist policy. It was (and is) implemented mainly through fines and financial disincentives, in a way that varied across China in its formal and informal application. China's coercive one-child policy, peaking in the 1980s, manifested less as physical coercion – theoretically counter to Party-endorsed ethics, as Susan Greenhalgh explains – and more as extremely forceful propaganda and punishments for breaches of policy that ranged from loss of jobs and housing to loss of party membership.<sup>43</sup> There were numerous exceptions to the policy (for rural families, if the first child was female, or for non-Han minorities).<sup>44</sup> There has been a dramatic drop in Chinese fertility, unsurprisingly, alongside great international critique of the policy and of its spin-off effects, female infanticide in particular. Yet Lee and Wang argue that this is effectively the return of a long Chinese tradition of female infanticide, one of the leading means by which population was controlled in the eighteenth century. Some historians argue that the current imbalance in sex ratio at birth is more standard than exceptional in modern Chinese demographic history.<sup>45</sup>

The Indian and the Chinese instances cemented the connection between population control, illiberal politics, and unfreedom that had circulated since the rise of legally compelled eugenic sterilizations in the early twentieth century in some US states, two Canadian provinces, the Swiss canton of Vaud, Nazi Germany, and elsewhere.<sup>46</sup> Eugenics advocates in other polities, notably the United Kingdom, while deeply interested in sterilization, in fact

43 Susan Greenhalgh, *Cultivating Global Citizens: Population in the Rise of China* (Cambridge, MA: Harvard University Press, 2010).

44 Susan Greenhalgh and Edwin A. Winckler, *Governing China's Population: From Leninist to Neoliberal Biopolitics* (Stanford University Press, 2005).

45 Lee and Feng, *One Quarter of Humanity*, pp. 7, 47–51. See also Wang Feng, Yong Cai, and Baochang Gu, "Population, policy, and politics: how will history judge China's one-child policy?" *Population and Development Review* 38 (2012), 115–129.

46 Ian Dowbiggin, *The Sterilization Movement and Global Fertility in the Twentieth Century* (Oxford University Press, 2008); see also Mohan Rao, *From Population Control to Reproductive Health: Malthusian Arithmetic* (New Delhi: Sage, 2004).

never proposed it to be legally practiced without the consent of the individual: this cut across too many liberties. Indeed, the history of sterilization – eugenic and otherwise – is one key site where modern ideas about consent, freedom, and ethical medical practice have been worked out over the twentieth century. “Population control” became linked to coercive practice; “family planning” to an ethics of freedom and choice, although the clarity of such distinctions as matters of history, as opposed to matters of politics, has been questioned.<sup>47</sup>

### Global political ecology

By the late twentieth century, experts had politicized population growth and distribution as a global problem for many generations. They had explicitly framed the first World Population Conference held in Geneva in 1927 in terms of the limits of the Earth – meaning both spatial limits of the planet and the idea of diminishing agricultural return. This was countered and challenged, of course. Especially in the high modern mid-century, projects that constituted the so-called Green Revolution accompanied any number of development agendas premised on cornucopian nature and boundless energy production. But the argument about limits retained some purchase, not least in the technical work of ecologists that was strongly popularized after the Second World War, with a focus on the problem of soil erosion. A global political ecology of population peaked in 1968. The great reception and notoriety of Paul Ehrlich’s *Population Bomb*, published that year, should thus be seen both as the culmination of many generations of problematizing population on planet Earth, specifically in relation to food supply, and as a sign that a newly receptive generation was active. For that generation, population growth, environmentalism, and energy politics were of a piece, at both grass-roots and corporate levels. This was the era when the Club of Rome formed as a transnational group of leaders in politics, business, and science, hoping to put the idea of limits to growth into global action. Their commissioned study, *The Limits to Growth*, modeled continual population growth alongside four other variables (industrialization, food production, resource depletion, and pollution).<sup>48</sup> Its “world model” fueled discussion of anti-growth or no-growth economics and politics over the 1970s. Another manifestation of this moment of high

<sup>47</sup> See Bashford, *Global Population*, pp. 328–354.

<sup>48</sup> Donella H. Meadows et al., *The Limits to Growth: A Report for the Club of Rome’s Project on the Predicament of Mankind* (London: Earth Island, 1972).

popular concern about world population was the demographic ambition and later the political movement of “ZPG” – zero population growth. This was never achieved, but 1963 was the year that the acceleration of the rate of growth peaked (at 2.2 percent per annum). There has been a decline since then to around 1.1 percent per annum.

In difficult conversation with the reinvigorated politics of population limitation and environmentalism was a new generation of feminist lobbyists active in international politics. It was they who critiqued “population control,” emphasizing coerced measures, and separating out the apparent individual choice of “family planning.” For complex reasons, partly, but not only, to do with the success of this lobbying, a feminist understanding of the need to limit births, or to be free to choose to do so, was endorsed by the UN. Secretary-General U Thant made widely publicized declarations in 1966 that the international community must accord to parents the right to determine the numbers of their children. The moment crystallized the polyvalence of population politics. U Thant was responding mainly to a Rockefeller initiative, whose Population Council had managed to persuade many national leaders to press a change in UN policy not for women’s sake, but as a combination of pro-development and anti-communism. The idea of women’s autonomy was grafted onto the program, to some extent still a more expedient than authentic move for many in power. In other respects, long-standing feminist argument ultimately proved remarkably successful in UN circles, whose agencies increasingly affirmed and endorsed women’s reproductive rights, in theory if not always in policy and in practice.

The World Health Organization (WHO) integrated family planning into its primary health care platform in 1968. At the same time the principle and rubric of reproductive rights has become formally universal – that is to say a “human right” – and thus to a large extent part of the West’s self-definition. This proved conceptually and politically complex because the “right” at issue entailed both “freedom” to reproduce and “freedom” not to reproduce at all. Thus, for example, Article 16 of the 1948 Universal Declaration of Human Rights did not assert a right to contraception, but its opposite – the right to “found a family.” The extent to which later twentieth-century reproductive freedoms were historically tied to the idea of “Freedom from Hunger,” itself derived from Roosevelt’s mid-twentieth-century “four freedoms,” also needs recognition.<sup>49</sup>

It was feminist workers, scholars, and thinkers who were perhaps most active in thinking critically through the north–south, east–west politics of

49 Bashford, *Global Population*, chapter 10.

family planning, development, population control, gender, and ethnicity.<sup>50</sup> It was a successful intellectual and political move, and a critical position on population control has become something like an orthodoxy. It is in large part due to this critique that historical memory of controversy looms large in public discussion of population matters. Commentators, politicians, and policymakers in liberal democracies know broadly that “population” is difficult political territory, a no-go zone linked – somehow – to a history of eugenics, racism, compulsory sterilization, and illiberal politics.

Towards the end of the twentieth century, the multiple strands of world population politics have twisted again. One phenomenon of the twenty-first century relates to sharply changing demographics: aging populations on the one hand; and disproportionately young populations on the other. The latter has even been nominated as one of the “roots of terrorism.”<sup>51</sup> While the marker of 7 billion people alerted the world to ongoing growth globally, national fertility decline below local replacement level is also a politicized problem: in Italy, in Japan, and in Eastern Europe.<sup>52</sup> In the meantime, it is the accelerating population growth in Africa that focuses international and NGO attention. While public statements about population control have on the whole been difficult for policymakers to declare since the late 1970s, this seems to be turning around, for better or worse. It has taken an issue of the dimensions of global climate change to embolden policymakers to at least discuss population growth as a world problem, even if they fall short of suggesting policies to address it. The United Nations Population Fund (UNFPA) calls for a complex understanding of population dynamics in the context of climate change, including age structure, rural/urban distributions, and household sizes. These axes of analysis should shape discussion of the population–climate nexus, alongside population size.<sup>53</sup>

A final late modern marker of global economic inequity is the problematization of infertility and the new reproductive technologies that address this. To some extent class-defined – though this is moderated by refined

50 Betsy Hartmann, *Reproductive Rights and Wrongs: The Global Politics of Population Control and Contraceptive Choice* (New York: Harper & Row, 1987).

51 Paul R. Ehrlich and Jianguo Liu, “Some roots of terrorism,” *Population and Environment* 2 (2012), 183–192.

52 Cristina Bradatan and Glenn Firebaugh, “History, population policies, and fertility decline in Eastern Europe,” *Journal of Family History* 32:2 (2007), 179–192.

53 UNFPA, “Linking population, poverty and development: analyzing the relationship between population and climate change,” [www.unfpa.org/pds/climate/](http://www.unfpa.org/pds/climate/), accessed September 1, 2013.



health and welfare structures in many liberal democracies – there is a clear north–south division between women still seeking simple technologies to control fertility and those who have access to complex and expensive technologies to overcome infertility. The highly individualized, but nonetheless nationally and internationally politicized field of inter-country adoption and surrogacy is an extension of the phenomenon of (largely) first world infertility. This is, perhaps, the bizarre unfolding of the league of low birth rate nations, a stage of global demographic transition that no one quite expected.

## Further reading

### Primary

- Chen, Ta. *The Population in Modern China*. University of Chicago Press, 1946.
- Engels, Friedrich. *The Origin of the Family, Private Property and the State* [1884]. New York: International Publishers, 1974.
- “Outline of a critique of political economy” [1844]. In Philip Appleman, ed., *An Essay on the Principle of Population*. New York: Norton, 2004.
- Sanger, Margaret. “A birth strike to avert world famine.” *Birth Control Review* 4 (1920).
- Sauvy, Alfred. “Trois mondes, une planète.” *L’Observateur*, August 14, 1952.

### Secondary

- Ahluwalia, Sanjam. *Reproductive Restraints: Birth Control in India, 1877–1947*. Urbana and Chicago, IL: University of Illinois Press, 2008.
- Arnold, David. “Official attitudes to population, birth control and reproductive health in India, 1921–1946.” In Sarah Hodges, ed., *Reproductive Health in India: History, Politics, Controversies*. Hyderabad: Orient Longman, 2006, pp. 22–50.
- Bashford, Alison. *Global Population: History, Geopolitics, and Life on Earth*. New York: Columbia University Press, 2014.
- “Malthus and colonial history.” *Journal of Australian Studies* 36:1 (2012), 99–110.
- Bashford, Alison, and Philippa Levine, eds. *The Oxford Handbook of the History of Eugenics*. Oxford University Press, 2010.
- Bradatan, Cristina, and Glenn Firebaugh. “History, population policies, and fertility decline in Eastern Europe.” *Journal of Family History* 32:2 (2007), 179–192.
- Briggs, Laura. *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico*. Berkeley, CA: University of California Press, 2002.
- Caldwell, John. “Malthus and the less developed world: the pivotal role of India.” *Population and Development Review* 24:4 (1998), 675–696.
- Chandra, Shanta Kohli. *The Family Planning Programme in India*. Delhi: Mittal, 1987.
- Cohn, Bernard S. “The census, social structure and objectification in South Asia.” In *An Anthropologist among the Historians and Other Essays*. Delhi: Oxford University Press, 1987, pp. 224–254.

- Connelly, Matthew. *Fatal Misconception: The Struggle to Control World Population*. Cambridge, MA: Belknap Press of Harvard University Press, 2008.
- Davin, Anna. "Imperialism and motherhood." *History Workshop* 5:1 (1978), 9–65.
- Dölling, Irene, Daphne Hahn, and Sylka Scholz. "Birth strike in the new federal states: is sterilization an act of resistance?" In Susan Gal and Gail Kligman, eds., *Reproducing Gender: Politics, Publics, and Everyday Life after Socialism*. Princeton University Press, 2000, pp. 118–147.
- Dowbiggin, Ian. *The Sterilization Movement and Global Fertility in the Twentieth Century*. Oxford University Press, 2008.
- Dunstan, Helen. "Official thinking on environmental issues and the state's environmental roles in eighteenth-century China." In Mark Elvin and Ts'ui-jung Liu, eds., *Sediments of Time: Environment and Society in Chinese History*. Cambridge University Press, 1998, pp. 585–616.
- Ehrlich, Paul R., and Jianguo Liu. "Some roots of terrorism." *Population and Environment* 2 (2012), 183–192.
- Feng, Wang, Yong Cai, and Baochang Gu. "Population, policy, and politics: how will history judge China's one-child policy?" *Population and Development Review* 38 (2012), 115–129.
- Fenn, Elizabeth. *Pox Americana: The Great Smallpox Epidemic of 1775–82*. New York: Hill & Wang, 2001.
- Ghosh, Durba. *Sex and the Family in Colonial India: The Making of Empire*. Cambridge University Press, 2006.
- Greenhalgh, Susan. *Cultivating Global Citizens: Population in the Rise of China*. Cambridge, MA: Harvard University Press, 2010.
- Just One Child: *Science and Policy in Deng's China*. Berkeley, CA: University of California Press, 2008.
- Greenhalgh, Susan, and Edwin A. Winckler. *Governing China's Population: From Leninist to Neoliberal Biopolitics*. Stanford University Press, 2005.
- Hall, Lesley. *The Life and Times of Stella Browne: Feminist and Free Spirit*. London: I. B. Tauris, 2011.
- Hartmann, Betsy. *Reproductive Rights and Wrongs: The Global Politics of Population Control and Contraceptive Choice*. New York: Harper & Row, 1987.
- Heer, David M. "Abortion, contraception, and population policy in the Soviet Union." *Demography* 2 (1965), 531–539.
- Ho, Ping-ti. *Studies on the Population of China, 1368–1953*. Cambridge, MA: Harvard University Press, 1959.
- Jolly, Margaret. "Other mothers: material 'insouciance' and the depopulation debate in Fiji and Vanuatu, 1890–1930." In Kalpana Ram and Margaret Jolly, eds., *Maternities and Modernities: Colonial and Postcolonial Experiences in Asia and the Pacific*. Cambridge University Press, 1998, pp. 177–212.
- Koven, Seth, and Sonya Michel, eds. *Mothers of a New World: Maternalist Politics and the Origins of Welfare States*. London and New York: Routledge, 1993.
- Lee, James Z., and Wang Feng. *One Quarter of Humanity: Malthusian Mythology and Chinese Realities, 1700–2000*. Cambridge, MA: Harvard University Press, 1999.
- Marks, Lara. *Sexual Chemistry: A History of the Contraceptive Pill*. New Haven, CT: Yale University Press, 2001.

- May, John. *World Population Policies: Their Origin, Evolution, and Impact*. Dordrecht: Springer, 2012.
- McCormick, Ted. *William Petty and the Ambitions of Political Arithmetic*. Oxford University Press, 2009.
- McGregor, Russell. "'Breed out the colour' or the importance of being white." *Australian Historical Studies* 33 (2002), 286–302.
- McNeill, J. R. "Population and the natural environment: trends and challenges." *Population and Development Review* 32 (2006), 183–201.
- McNeill, William H. *Population and Politics Since 1750*. Charlottesville, VA: University of Virginia Press, 1990.
- Meadows, Donella H., et al. *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. London: Earth Island, 1972.
- Norgren, Tiana. *Abortion Before Birth Control: The Politics of Reproduction in Postwar Japan*. Princeton University Press, 2001.
- Oakley, Deborah. "American–Japanese interaction in the development of population policy in Japan, 1945–52." *Population and Development Review* 4:4 (1978), 617–643.
- Petersen, William. "Marxism and the population question: theory and practice." In Michael S. Teitelbaum and Jay M. Winter, eds., *Population and Resources in Western Intellectual Traditions*. Cambridge University Press, 1989, pp. 77–101.
- Quine, M. S. "Racial 'sterility' and 'hyperfecundity' in fascist Italy: the biological politics of sex and reproduction." *Fascism* 1 (2012), 92–144.
- Rallu, Jean Louis. "From decline to recovery: the Marquesan population 1885–1945." *Health Transition Review* 2:2 (1992), 177–194.
- Rao, Mohan. *From Population Control to Reproductive Health: Malthusian Arithmetic*. New Delhi: Sage, 2004.
- Robertson, Thomas. *The Malthusian Moment: Global Population Growth and the Birth of American Environmentalism*. New Brunswick, NJ: Rutgers University Press, 2012.
- Ronsin, F. "Between Malthus and the social revolution: the French Neo-Malthusian movement." In J. Dupâquier, A. Fauve–Chamoux, and E. Grebenik, eds., *Malthus: Past and Present*. London: Academic Press, 1983, pp. 329–339.
- Rusnock, Andrea. *Vital Accounts: Quantifying Health and Population in Eighteenth-century England and France*. Cambridge University Press, 2002.
- Schayegh, Cyrus. "Eugenics in interwar Iran." In Alison Bashford and Philippa Levine, eds., *The Oxford Handbook of the History of Eugenics*. Oxford University Press, 2010, pp. 449–461.
- Silberman, Leo. "Hung Liang-Chi: a Chinese Malthus." *Population Studies* 13:3 (1960), 257–265.
- Smith, Neil. *American Empire: Roosevelt's Geographer and the Prelude to Globalization*. Berkeley, CA: University of California Press, 2003.
- Stoler, Ann. "Sexual affronts and racial frontiers: European identities and the cultural politics of exclusions in colonial Southeast Asia." *Comparative Studies in Society and History* 34:3 (1992), 514–551.
- Szreter, Simon. "The idea of demographic transition and the study of fertility change: a critical intellectual history." *Population and Development Review* 19:4 (1993), 659–701.
- Thomas, Nicholas. "Sanitation and seeing: the creation of state power in early colonial Fiji." *Comparative Studies in Society and History* 32 (1990), 149–170.

- Toye, John. "Keynes on population and economic growth." *Cambridge Journal of Economics* 21:1 (1997), 1–26.
- Turda, Marius. *Modernism and Eugenics*. New York: Palgrave Macmillan, 2010.
- UNFPA. "Linking population, poverty and development: analyzing the relationship between population and climate change." [www.unfpa.org/pds/climate/](http://www.unfpa.org/pds/climate/), accessed September 1, 2013.
- Wolfe, Patrick. "Land, labor, and difference: elementary structures of race." *American Historical Review* 106:3 (2001), 866–905.
- Wrigley, E. A. *Poverty, Progress, and Population*. Cambridge University Press, 2004.

## Disease and world history from 1750

MARK HARRISON

When we think about disease in world history, we are drawn instinctively to the movement of pathogens and peoples. Disease has followed trade, exploration, and conflict, and has magnified their consequences.<sup>1</sup> Some historians even write of the “unification” of the globe by disease, as if its distribution provides an index of human connectivity.<sup>2</sup> But the history of disease is as much about divergence as about convergence, and the last two and a half centuries provide ample evidence of both. The period started quietly enough but the coming century experienced an exchange of pathogens unequalled in variety and scope. Wave after wave of pandemic disease and livestock diseases circulated the globe, leaving enormous misery in their wake. And yet, the same period saw tremendous improvements in human health. Many common infectious diseases were banished from the developed world, widening the gap that already existed between the mortality profiles of rich and poor countries. These inequalities are still glaringly apparent but the affluent classes in Africa and Asia now experience disease in much the same way as those in the West, with rising rates of cardio-vascular and degenerative conditions. But as recent outbreaks of SARS and “swine flu” have reminded us, our globalized future may yet be a turbulent one. It is perhaps time, therefore, to take stock of our epidemiological past.

### The retreat of plague

The middle of the eighteenth century saw few great shifts in patterns of disease but the advent of what would become a near global conflict between the European powers – the Seven Years’ War (1754–1763) – brought heavy

<sup>1</sup> William H. McNeill, *Plagues and Peoples* (Garden City, NY: Anchor Press, 1976).

<sup>2</sup> Emmanuel Le Roy Ladurie, “A concept: the unification of the globe by disease,” in *The Mind and Method of the Historian* (Brighton: Harvester, 1981), pp. 28–83.

mortality to the affected regions. Typhus raged in the besieged cities of Europe; malaria and yellow fever in the Caribbean; and dysentery and fevers in the East Indies. Other communicable diseases – including sexually transmitted diseases – were beginning to spread into new parts of North America and the Pacific Ocean as they were penetrated by European explorers and settlers. However, in Europe itself, the disease which had caused the most dreadful predations in previous centuries – plague – was in retreat. With the exception of an epidemic in Marseilles and its vicinity in 1720–1721, Western and Central Europe had not been troubled by the disease since the 1660s.

At the time, many thought that plague had been contained by the practice of quarantine. The Austro-Hungarian Empire maintained a 1,600 kilometer sanitary cordon along its eastern border, and many European countries strengthened their maritime quarantines in the wake of the epidemic in Marseilles. However, those who disliked quarantine began to question its efficacy, claiming, with some medical support, that plague was not particularly contagious and that it flourished only in unsanitary and unfavorable climatic conditions. These debates have continued among historians but it seems likely that quarantine provides at least part of the explanation for the disappearance of plague. Nothing else seems capable of explaining why it continued to wreak havoc in the Ottoman provinces of Moldavia and Wallachia to the southeast of the Austro-Hungarian Empire and in Russia to the northeast. Climatic and sanitary conditions on the Habsburg side of the border were not so very different from those to the east.

But while much of Europe prided itself on having banished plague, there was growing unease about the propensity of civilization to breed new ills. There were concerns that the abundance generated by colonial ventures – the sugar colonies of the West Indies and the exotic trades of the various East India companies – was corrupting the minds and bodies of prosperous consumers. The agonizing complaint of gout – widely associated with high living – became almost a hallmark of social status, while a host of nervous affections threatened to enfeeble the wealthy denizens of countries such as France and Britain. These problems seemed to be most evident in cities, and over the coming century successive generations of writers came to lament the infirmities of urban life. While existence in the countryside was harsh and often unsanitary, some saw it as preferable to the overcrowding, alienation, and crime that characterized the modern metropolis. Swollen by a rootless population of economic migrants, booming port cities like London and new industrial towns like Manchester were filthy, alienating, and dangerous. Economic progress, it seemed, came at a cost, and concerned citizens

began to band together in enlightened self-interest to construct fever hospitals and other such establishments for the poor.

### Atlantic connections

Mounting anxiety about home-grown fevers was accompanied by the prospect of invasion from without. The first indication of this new threat came in the Caribbean, in 1793, when the island of Grenada was struck by a severe epidemic of yellow fever. Some physicians attributed the outbreak to an infection brought on ships returning from the west coast of Africa; from Grenada, the disease spread to the French colony of Saint-Domingue where slaves were in revolt, causing refugees to leave the island for the Eastern seaboard of America.<sup>3</sup> Soon after their arrival in Philadelphia – the capital of the recently proclaimed American republic – yellow fever made its appearance, causing thousands of deaths. By 1801, the disease had crossed the Atlantic, where it intermittently ravaged the Mediterranean coast of Spain for two decades, severely affecting cities such as Cadiz and Barcelona.

Yellow fever occurred relatively frequently in tropical Africa and on the western side of the Atlantic but this was probably the first time that it had affected Europe. The most likely reason was the advent of war between Britain and revolutionary France. During the 1790s, tens of thousands of soldiers died from yellow fever in the Caribbean but thousands of infected men also managed to make it back across the Atlantic, together with the mosquitoes which spread the disease. However, the fever continued to break out periodically in the Mediterranean long after the war ended in 1815. After a mysterious lull in the 1830s and 1840s, it returned once more to Europe, badly affecting Lisbon in 1857, with smaller epidemics in St Nazaire and Swansea in the early 1860s.

The expansion of yellow fever thus appears to be something more than a consequence of war. Most of the outbreaks which occurred in Europe after 1815 were attributed to vessels involved in various forms of trade – delivering shipments of sugar, guano, and mineral ores, for example – or the arrival of the mail ships which traversed the oceans in increasing numbers. What many of these vessels had in common was that they were powered by steam rather than simply by sail. Their number grew steadily through the century, allowing the Atlantic crossing to be made in less than a week. As a result, persons

3 J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914* (Cambridge University Press, 2010), chapter 7.

infected with yellow fever were not always detected before their symptoms appeared. The disease therefore had the potential to disrupt the Atlantic economy, as did the measures designed to contain it. Merchants on both sides of the ocean complained bitterly of the effects of quarantine on their business, and their vexation was shared by persons returning on leave from the European colonies. This led countries such as France and Britain to dismantle or reduce quarantine in their ports. Many North American ports, too, took a relatively relaxed attitude to the disease in the first few decades of the century, but its recrudescence in the 1850s, with major outbreaks at New Orleans, Rio de Janeiro, and Lisbon, forced them to reconsider.<sup>4</sup>

It is unclear why yellow fever erupted at this time, but the most likely explanation is that the growing volume of shipping coincided with favorable environmental conditions, for the mosquito vector of yellow fever is extremely sensitive to changes in climate. But the response to the resurgence of yellow fever – and in particular to the threat posed by steam navigation – set the tone for sanitary measures over the coming decades. It became a test case for how to deal with disease in an increasingly integrated economy. Old-style quarantine – in which ships, their cargoes, and their crews were impounded (sometimes together) – disrupted commerce and was increasingly regarded as inhumane. Alternatives had to be found, and from the early 1870s, following a severe epidemic in Buenos Aires, more emphasis was placed on sanitary reform. Yellow fever was said to thrive only in humid, ill-ventilated, and unsanitary conditions, which meant that it could be controlled largely through environmental improvement. By the 1890s, however, it had been proven that the disease was spread by a mosquito (*Aedes aegypti*), and the focus changed from general sanitary improvement to fumigation and drainage. Through these means, public health officials and engineers from the United States achieved the remarkable feat of ridding the Panama Canal of yellow fever, stemming heavy mortality among construction workers and securing the Canal's smooth operation when it opened in 1914.

### Oriental perils

Despite fears that yellow fever might spread eastwards, it remained confined to the continents which surrounded the Atlantic Ocean. In this sense, it was very much an exception among diseases which had the potential to become

4 Mark Harrison, *Contagion: How Commerce Has Spread Disease* (New Haven, CT, and London: Yale University Press, 2012), chapter 5.



epidemic. Most of the pandemics which swept the globe during the nineteenth century had their origin in Asia and spread from there to almost every part of the world. Not the least of these was cholera. With its terrifying symptoms and high fatality rate, cholera was universally feared. Its victims suffered severe cramps and profuse diarrhea, leaving their nervous systems exhausted and their bodies depleted. The prospect of an agonizing and undignified death ensured that cholera ranked among the world's most dreaded diseases, but this fear was magnified by uncertainty. Its obscure provenance and unexplained appearances left medical practitioners bewildered for decades.

The origins of cholera as an epidemic disease are generally traced to 1817, when it erupted in severe form in the town of Jessore, in what is now Bangladesh. Shortly afterwards, the disease spread to Calcutta, the capital of British India, and over the next two years it moved north and westwards, following the movement of British troops. By the early 1820s, it had arrived in many parts of Asia through maritime and overland trade. But the question of why cholera emerged as an epidemic at this point in time has yet to be satisfactorily explained. The most likely reason is the sweeping changes wrought by the British to the economy of Bengal, especially the destruction of local industries and the increasing use of migrant labor.

As cholera spread beyond the Ganges delta to affect other parts of the world, it appeared to show a "preference" for the filthiest abodes and the lowest social classes. It was, predominantly, a disease of the poor, the vanquished, and the desperate. It spread among refugees, economic migrants, and soldiers; all groups which were seen as threatening in their own right. Cholera added to their misery and the stigma which they bore. In view of these associations, it is not surprising that its arrival sharpened social tensions, especially in countries in which political relations were already strained. This was true of many parts of Europe and North America when cholera first reached those continents in the early 1830s. The streets of cities such as Moscow and Paris saw serious civil unrest, not to mention repression by the authorities.<sup>5</sup>

One of the main vectors for the spread of cholera over the coming decades was long-distance migration, especially the passage of indentured laborers from India. These "coolies" were bound to their masters by a contract of long duration, during which time they were often compelled to perform exacting and dangerous work in mines and plantations. This "legalized system of

5 Christopher Hamlin, *Cholera: The Biography* (Oxford University Press, 2009).

slavery,” as it was termed by critics, replaced the old system of slavery which had previously been the foundation of the Atlantic economy. As Britain and other European powers abolished slavery, many of their colonies faced ruin as their supply of cheap labor dried up. Indentured workers filled the gap but with them came a host of diseases, including cholera. Despite attempts to keep the disease at bay with quarantine, cholera soon became established on plantations in the Caribbean and subsequently in many parts of Asia and Africa.

Although labor migration was among the chief vehicles of cholera, the Western powers were increasingly preoccupied with its spread via the Islamic pilgrimage to Mecca, where 35,000 pilgrims perished during an epidemic in 1865. This was not the first time that cholera had broken out at Mecca, but the pathway between the city and India was now more visible. When cholera had spread on previous occasions, it had done so more slowly and by routes which were circuitous and obscure. Now they seemed more definite, for steamships and railways – not least the Hejaz railway which linked the Muslim holy land to northern Arabia – allowed the disease to spread rapidly, making the path of cholera more clearly defined. Within months of the outbreak in Mecca, the disease had spread with returning pilgrims to many parts of Asia and Africa, and from there to Europe and the United States.<sup>6</sup>

After the wave of cholera in 1865–1866, Western nations contemplated the terrifying prospect of further pandemics spreading unnoticed from Asia. These fears were magnified by the opening of the Suez Canal in 1869, which increased the likelihood of cholera being delivered directly to Europe from oriental ports. The answer, it seemed, was to create a sanitary barrier to protect the West from sources of infection. Behind this screen, European nations would be able to operate a sanitary regime which interfered relatively little with navigation. But in the sanitary buffer zone the strictest vigilance was to be maintained and this would impose a heavy burden on Middle Eastern states. Nevertheless, polities such as Egypt, Iran, and the Ottoman Empire were willing to undertake this task. The frequent epidemics that had occurred in their territories since 1821 were an impediment to modernization, and quarantine stations were thus erected at Jeddah, Alexandria, and other ports receiving ships from potentially infected places.

6 Myron Echenberg, *Africa in the Time of Cholera: A History of Pandemics from 1817 to the Present* (Cambridge University Press, 2011); Saurabh Mishra, *Pilgrimage, Politics, and Pestilence: The Haj from the Indian Subcontinent, 1860–1920* (New Delhi: Oxford University Press, 2011).

It is hard to tell whether or not the imposition of quarantine in the Middle East had any effect on the spread of cholera. Epidemics to the west of this zone certainly became less frequent, but other explanations are equally plausible. Cholera thrived only in those places where filth and overcrowding abounded and where pure water supplies were hard to come by. For much of the century, these conditions were to be found in the squalid habitations of laborers and peasants in every part of the world, but, by the end of the century, a significant gap had emerged. After the outbreaks of 1866, most parts of Europe were never again visited by cholera, whereas it continued to thrive elsewhere. Several decades of sanitary reform, epitomized by the efforts of Edwin Chadwick in Britain and Georges Haussmann in Paris, transformed the urban environment, keeping sewage from contaminating supplies of drinking water. The epidemiological researches of John Snow in London in the 1840s and 1850s provided a stimulus to this process, and the disease was further demystified by the German bacteriologist Robert Koch, who in 1884 isolated the causal organism – a bacterium – from a reservoir in Calcutta. This enabled preventive measures to become more specific and potentially less disruptive. At any rate, after the epidemic which occurred at Hamburg in 1892, cholera never again presented a significant threat west of Suez.

Just as cholera disappeared from the developed world, a new and even more terrifying threat emerged from the Orient. Throughout the nineteenth century, outbreaks of plague had occurred periodically in parts of Asia and the Middle East, but there was little to suggest they might become widespread. Some of these localities were “reservoirs” of infection, in which wild rodents, such as marmots, carried the bacterium causing plague. Occasionally, these animals managed to infect humans and populations of domestic rodents like rats. Environmental change, war, and natural disasters all favored the spread of plague from these isolated pockets to surrounding areas. From the middle of the century, the upland province of Yunnan in southern China was ravaged by a civil war following a Muslim insurrection against the imperial authority of the Qing dynasty. Outbreaks of plague became common and, in 1890, it spread to Canton (Guangzhou), a busy and populous port on the Pearl River. This area had been opened up to trade over the previous decades, largely as a result of the traffic in opium, which came into China from India. Canton was only eighty miles up-river from the major commercial hub of Hong Kong, a British colony since 1892. Every year, thousands of economic migrants from southern China flocked to Hong Kong in the hope of gaining a laboring contract which

would take them to work in other parts of the British Empire and also, increasingly, in North America.

Plague traveled with these desperate people just as cholera had with previous generations of migrants, and Hong Kong was declared infected in 1894. The world watched with horror in the expectation that plague would radiate outwards and many nations and companies suspended navigation into the port. Unexpectedly, plague remained confined to southern China for two more years, but, in the summer of 1896, it appeared in the great Indian port of Bombay. The disease spread quickly from Bombay but was not reported outside the subcontinent until 1898–1899, when it appeared in Madagascar, Egypt, and Japan. It was now clear that plague posed a threat of global proportions. Despite its ancient lineage, the disease was well suited to modern conditions and spread easily along the sinews of a mature global economy. By the early 1900s it had reached every inhabited continent, with a series of outbreaks in the South Pacific, Australia, and the United States.<sup>7</sup>

In the majority of affected countries, plague remained confined to the major port cities, the great exception being India; the western and northern part of the subcontinent being ravaged for decades, claiming millions of lives. From Bombay, the disease spread along railways to largely agricultural areas such as the Punjab and by sea to ports like Karachi. Railways were also the main avenue for the spread of plague in Manchuria in 1910–1911 and 1920–1921, but these outbreaks had a different source from other plague epidemics, including those in southern China. They originated in Mongolia and spread south and east from nearby railway towns with laborers as they returned home for the New Year. Unlike the majority of other outbreaks, the Manchurian plagues were unusual in that most cases assumed the virulent and highly contagious pneumonic form, capable of spreading easily from person to person.

The so-called Third Plague Pandemic lasted from 1890 to the 1940s, but it is the first, most turbulent, years of the pandemic which have received most attention from historians. Faced with damaging trade embargoes and the stigma of infection with a dreaded disease, most governments took drastic measures, forcibly isolating and hospitalizing plague victims and their contacts, destroying their property, and subjecting people to humiliating searches. Such measures elicited an angry response. In Hong Kong and India there were violent protests, in some cases culminating in the murder

7 Myron Echenberg, *Plague Ports: The Global Urban Impact of Bubonic Plague, 1894–1901* (New York University Press, 2007).

of plague officers. Elsewhere, there were numerous attacks on government buildings, strikes, and the mass flight of inhabitants from cities. Like cholera epidemics earlier in the century, many historians have studied these outbreaks in the hope that they would reveal tensions latent within the societies affected. But there is a danger of generalizing too much from what were, by definition, unusual circumstances. We should not assume that hostility to officials and institutions at times of crisis was expressed in the ordinary course of events.

Preoccupation with the early years of the pandemic has also blinded us to the fact that governments learned from their early mistakes and from a few well-managed anti-plague campaigns like those in Egypt in 1900 and Sydney in 1902. In these places, there was an attempt to work with local communities and to minimize disruption to commercial and social life. These examples pointed the way to a new sanitary order. Once it became clear that plague could not be contained, most governments saw the need for a measured and co-ordinated response, and, moreover, a response which recognized the interrelatedness of the global economy. This realization saw the passage of the first binding international sanitary regulations, following conferences at Paris in 1903 and Washington in 1905. While their implementation was far from perfect, they marked a decisive shift towards a light-touch sanitary regime based on epidemic surveillance and public health measures in ports of embarkation.

This transition was gradually eased by advances in scientific knowledge. In 1894, it had been found that plague was a bacterial disease, but this discovery had little immediate impact on the measures which were used to combat it. However, it gradually became apparent that plague, in its usual bubonic form, was not directly contagious and that it seemed to coincide with deaths among rats. Henceforth, sanitary authorities turned their attention from humans to rodents – to their destruction and methods to secure ships, dwellings, and warehouses against them. From 1906 most scientists also concurred that the disease had spread from rats to humans by the bite of the rat flea. This meant that there was less need for quarantine and similarly disruptive measures, the exception being the plagues in Manchuria, where the Japanese, Chinese, and Russian authorities placed quarantine and isolation of passengers at the center of their plans.

The plague pandemic crystallized a tendency which had been noticeable for some years in the case of diseases such as yellow fever and cholera – a desire to have better intelligence about epidemics in order to permit less intrusive and damaging interruptions to the business of the modern world.

The sanitary conventions of the 1900s created offices in Paris and Washington for the collection of epidemiological data and distributed it to other states. This trend intensified in the years after the First World War, as the League of Nations Health Organization and its regional offices assisted in the collation and sharing of information. The advent of wireless radio speeded up communications further, allowing ships to notify ports of disease outbreaks before their arrival. Confidence in the accuracy and reliability of this information was enhanced by the maintenance of sanitary surveillance in ports around the world and by the activities of bodies such as the Rockefeller Foundation in the removal of some of the more obvious sanitary threats.

Epidemic diseases such as cholera remained a problem in the most deprived parts of Asia and Africa, particularly at times of famine and unrest. But the incidence of cholera, yellow fever, and plague fell markedly during the twentieth century, largely due to improvements in public health and possibly to acquired immunity, among humans and host animals such as rats. Either way, there was growing optimism that disease could be conquered. The outbreak of a world war in 1914 presented the ultimate challenge. In all previous conflicts, including recent ones like the Spanish–American War of 1898 and the South African War of 1899–1902, disease had invariably claimed more lives than injuries inflicted in battle. In many theatres of the First World War – especially the Eastern Front, the Middle East, the Mediterranean, and Africa – diseases such as typhus and cholera once again blighted military operations. Civilian populations also suffered enormously as a result of infection and destruction of sanitary infrastructure. But from a sanitary perspective, the war marked a turning point. In most armies – with the probable exception of the Ottoman forces – fatalities from disease were slightly less than fatalities from battle injuries. This owed something to the destructive potential of modern weapons but it was largely the result of increased attention to sanitation and the use of newly devised preventives such as inoculation against typhoid.<sup>8</sup>

Nevertheless, the war concluded with one of the greatest pandemics of all time. The three waves of influenza which began in 1918 and ended, in most countries, in 1919, claimed the lives of at least 25 million people and probably a good many more. Influenza had already established its potential as a pandemic disease, during the so-called Russian Flu of 1889. This disease had caused great alarm because rich and poor were equally likely to fall victim to it. The

8 Mark Harrison, *The Medical War: British Military Medicine in the First World War* (Oxford University Press, 2010).



Figure 9.1 Spanish flu epidemic 1918–1919. US school gymnasium converted into a flu ward with patients’ beds separated by screens (Everett Collection Historical/Alamy)

same was true of the pandemic of 1918–1919, which, unlike most “seasonal” epidemics of influenza, claimed victims disproportionately among young adults. The enormous number of deaths from this disease, coming hard on the heels of a major conflict, decimated an entire generation (Fig. 9.1).

Until recently, relatively little was known about this pandemic and its impact on the societies it affected. One of the reasons for this silence was that governments and the medical profession had been powerless to prevent it. They attacked the disease much as they had cholera and plague, assuming it to be a bacterial infection, but were impotent in the face of an agent – a virus – which was easily transmitted from person to person. There was, in short, no great victory to be celebrated. Moreover, as the war drew to a close, the combatant nations had other pressing concerns. Many aspects of the pandemic therefore remain shrouded in mystery; not least its causes and origins.<sup>9</sup> Some have traced its emergence to the battlefields of Europe, where conditions may have been conducive to the mutation of the virus; others have pointed to army camps in the United States or to northern China. None

9 Howard Phillips and David Killingray, eds., *The Spanish Influenza Pandemic of 1918–19: New Perspectives* (London: Routledge, 2003).



of these theories is totally convincing, but there is ample evidence linking the early spread of influenza to the passage of Chinese laborers and an East Asian source of the pandemic seems increasingly likely.

### The diseases of animals

The influenza of 1918–1919 marked the end of a century of pandemic disease, but the great upheavals of previous decades affected many species other than humans. From the 1830s, foot-and-mouth disease and bovine pleuropneumonia or “lung sickness” began to spread beyond Eastern and Central Europe to affect Western parts of the continent and ultimately the Americas. Everywhere they went, these diseases created misery and economic hardship, but the ways in which they were managed varied considerably. In some cases, whole herds of cattle were slaughtered in an attempt to eradicate disease, but more often than not, infected cattle were simply isolated from those thought to be healthy. This was especially true of foot-and-mouth disease, which, while it caused great distress to livestock, was rarely fatal. As a result, these diseases became firmly established in many areas from which they had hitherto been absent.

The spread of livestock diseases was one consequence of the long-distance trade in animals; a trade fueled by urbanization. During the nineteenth century, it was becoming harder to supply the burgeoning populations of towns and cities from locally reared stock. Once real wages began to increase – as they did in most industrial nations – people came to demand more meat; a status symbol which they had hitherto been unable to afford. As demand increased, controls in markets and at borders began to slacken and disease passed easily from town to town and country to country. But there was one exception. Most Central European countries maintained a sanitary cordon against a disease known in German as rinderpest and in English as cattle plague. Unlike foot-and-mouth disease, this was a fatal infection and had the capacity to cause great devastation.

Europe had been ravaged by this disease on several occasions in the past, spreading most often at times of war when large numbers of cattle were moved to supply armies. But from the 1740s, some countries began to establish quarantines and slaughter infected cattle. Prussia, for example, maintained a very strict sanitary cordon against rinderpest, but the majority of cattle entered Europe – from the Russia Steppes where they were reared – through the Austro-Hungarian Empire. Livestock from Russia was supposed to be quarantined at stockyards in Hungary, but many unscrupulous dealers



smuggled cattle through. By the 1850s, there was also concern that the imminent completion of a railway connecting the stockyards to ports in the north and west of Europe would allow disease to travel quickly and unnoticed. These warnings were prescient, and in 1866 the disease spread rapidly throughout Europe by rail and sea.

Rinderpest bore the hallmarks of a biblical plague, and its ravages – contemporaneous with the spread of cholera – led many to believe that humanity was being punished for its wickedness and lack of religious observance. Some also blamed the disease on the maltreatment of animals. But most European countries again attempted to “stamp out” the disease by slaughtering infected herds, and some, like Great Britain, introduced legislation to legitimize such measures and the imposition of quarantine at ports. These measures were deeply unpopular at first, as farmers initially received no compensation, but they were maintained and extended to cover other diseases such as foot and mouth.

In other parts of the world, however, the response was decidedly mixed. North America was fortunate in never experiencing an outbreak of rinderpest, but the disease appeared briefly in Argentina in the 1870s and was quickly stamped out by slaughter. From the 1890s, as Japan increased its influence on the eastern tip of Asia, it also maintained strict quarantines against the importation of infected cattle from the mainland, following outbreaks of rinderpest in Korea and Japan in the early 1890s. But in British India, where the disease became far more prevalent during the 1860s, there were no attempts to prevent its spread apart from one rather weak piece of legislation confined to southern India. British officials justified this on the grounds that the slaughter of cattle would upset Hindus, but, in any case, the practicability of such measures was doubtful. India was simply too vast a country and its herds too large to make quarantine practicable. For much the same reason, the disease spread unchecked through Africa after being introduced to the northeast of the continent in 1889. Within a couple of years it had reached the southern tip, having destroyed many pastoral societies along the way. Had it not been for the development of an effective inoculation against the disease at the end of the century by Robert Koch, there would have been no effective measures to prevent it. Even then, it was not until the late twentieth century that the disease was finally eradicated from Africa and South Asia.

Like most of the livestock diseases which spread in the course of the nineteenth century, rinderpest was a Eurasian disease, but there were some exceptions. During the late nineteenth century, there was a good deal of concern about the spread of a cattle disease known as Texas fever (a

tick-borne disease) which became more prevalent during the Civil War. It later moved north with the shipment of livestock to industrial cities, and cattle drives through the Midwest provoked violent unrest among local farmers who feared their stock would be infected. Proposals to quarantine cattle in the region were also resisted by ranchers and the meat industry based in northern cities like Chicago, which disliked anything that added to their costs. European countries, too, were wary about the spread of the disease from the United States and became unpopular with American farmers by regularly imposing quarantines. At much the same time, in the 1870s and 1880s, there was much dispute over the disease trichinosis, which appeared to spread to Europe with shipments of pork meat from the United States. American farmers suspected that the imposition of sanitary embargoes by countries such as Germany was really a way of protecting smaller and less-efficient European producers.

Disagreements over animal disease blighted international relations throughout the coming century, despite the fact that rules had been devised to regulate the prevention of epidemics. Argentina – a net exporter of cattle – and importing countries such as the United States and Britain were regularly at odds over the issue of foot and mouth, for example. The disease was endemic in many South American countries but had been stamped out in the importing countries, which were anxious to keep their disease-free status. Such disputes were difficult to resolve because producer interests were inclined to justify protectionist measures with dubious sanitary risk assessments. It was hoped that such abuses would diminish following the formation of the World Trade Organization and the drafting of the Agreement on the Application of Sanitary and Phytosanitary Measures in trade, in 1995. But, as formal tariffs were dismantled, the resort to sanitary and other “technical” obstacles to trade became more common.<sup>10</sup>

### A world divided by disease

Towards the end of the nineteenth century, sanitary measures (some informed by the new science of bacteriology) enabled the most developed nations to control many common infectious diseases. In poor countries, however, the burden of disease changed little or actually increased. This was true not only of diseases considered pestilential, like rinderpest or plague, but also of those which were indigenous and endemic. A good example is

<sup>10</sup> Harrison, *Contagion*, chapters 8 and 9.

smallpox, which was more or less ubiquitous by the turn of the nineteenth century. However, smallpox was also the only disease for which a specific and potentially highly effective method of prevention had been developed. After Edward Jenner established the efficacy of vaccination with cowpox in 1796, the technique was quickly exported to other parts of the world. Its proponents hoped that this procedure – which seemed to be safe as well as effective – would displace the older and more dangerous practice of inoculation with dried crusts from the scabs of smallpox pustules. This practice – often known as variolation – was fairly common in parts of Asia and North Africa and had been introduced to Europe and North America from the 1720s.

Despite the backing of Western medical elites, vaccination encountered opposition wherever it was introduced. Many people regarded it as unnatural that humans should be inoculated with matter from an animal and remained skeptical about its efficacy. In fact, for many years, vaccination was not as efficacious as its proponents claimed. It later became apparent that a second vaccination was required to confer complete protection. In hot climates, too, the lymph was prone to corruption and quickly lost its potency. For well over a hundred years, the operation also entailed cuts to the body with a lancet (rather than insertion by a syringe) and this brought with it the risk of infection and scarification. Attempts to make the practice compulsory thus produced vocal and often violent demonstrations.

Nevertheless, those governments which possessed sufficient resources pressed ahead, and mortality from smallpox was reduced massively as a result. In the European colonies, however, a combination of insufficient funds, bureaucratic inertia, cultural sensitivities, and technical and logistic problems prevented similar progress. In India, for example, some reduction in mortality was achieved by the middle of the twentieth century, but the contrast with Western countries, in which the disease had been virtually eradicated, was stark. Only after the World Health Organization – which was established in 1948 – made smallpox the subject of a worldwide campaign, would developing countries possess the resources to be able to eradicate the disease: an objective which was achieved in 1979.<sup>11</sup>

Although the campaign against smallpox was ultimately successful, progress regarding other common infectious diseases was more uneven. Tuberculosis, earlier termed “consumption” or the “white plague,” is a case in point. Although the disease is caused by a bacterium which is easily

<sup>11</sup> Sanjoy Bhattacharya, *Expunging Variola: The Control and Eradication of Smallpox in India, 1947–1977* (Hyderabad: Orient Longman, 2006).

transmissible, not everyone has the same reaction to it. Many persons exposed to infection never develop any symptoms, but in the nineteenth century those who did usually died. This meant that the meaning of the disease was open to interpretation: people sought an explanation for why some people succumbed and others not. At the beginning of the century, consumption had something of a romantic image, being associated with the death of famous poets and musicians, but by the middle of the century it had become a malady of factories and slums. Increasingly, too, it was regarded as an infectious disease. At the beginning of the century, many doctors regarded consumption as hereditary, the result of a tubercular “diathesis” which was activated by lifestyle or environmental conditions. These ideas did not disappear, but many came to believe that there was an infectious quality to tuberculosis and that it spread easily in confined and ill-ventilated spaces. After the bacterium causing the disease was discovered in 1882, this transition was complete, and posters went up around railway stations and other public places to discourage people from spitting, which seemed to be the most obvious way of spreading the disease.

Public health measures and growing natural immunity to infection combined to reduce mortality from tuberculosis in most industrialized countries. This, in turn, had a significant impact on mortality as whole, for tuberculosis was almost invariably the largest cause of death in most industrial countries. But while the disease was declining in the West, it was spreading rapidly in Africa and Asia. It was most evident in new manufacturing centers like the cotton mills of western India, as well as around mining settlements like those in South Africa.<sup>12</sup> As most of these industries relied heavily on migrant labor, it was not long before the disease spread to villages. Despite the inexorable rise in tuberculosis among the industrial workforce, responses to the disease were less than vigorous. In Europe and North America, there had been a concerted effort to improve public health and to provide treatment in sanatoria, even for the poor, but neither was very apparent elsewhere. Moreover, as an effective preventative inoculation (the BCG) became available from the 1930s, the gap opened still further, as it took many years before it began to be widely employed outside Europe and America. The same was true of the first effective treatment – the antibiotic streptomycin – which was given routinely in richer nations from the late 1940s. Some resistance to this drug was noted within a few years of its

12 Randall M. Packard, *White Plague, Black Labor: Tuberculosis and the Political Economy of Health and Diseases in South Africa* (Berkeley, CA: University of California Press, 1989).

introduction, but the irregular use of antibiotics – a product of poverty and unregulated selling of pharmaceuticals – allowed new drug-resistant forms of tuberculosis (XDR-TB) to become established in South Africa, and they are now spreading to other parts of the world.

Some doctors regarded the rise of tuberculosis as inevitable. In their view, it was a “disease of civilization,” a rite of passage through which all industrializing societies had to travel. But another endemic disease – malaria – was generally ascribed to the absence of civilization. For this reason, European countries like Italy, which still suffered heavily from malaria, made an enormous effort to get rid of it, aided by a procession of scientific advances, most obviously the discovery of the malaria parasite in 1880 and the mosquito vector in 1898. The latter gave rise to hopes that malaria could be eradicated by destroying the larval or adult forms of the *Anopheles* mosquito. Either on its own, or in conjunction with the drug quinine – which had been synthesized from cinchona bark in 1820 – measures like drainage of breeding pools and the spraying of insecticide were tried with varying degrees of success.

They were most successful in relatively confined areas, such as Singapore, or where massive resources were marshaled for the purpose, such as fascist Italy. But in the majority of malaria-afflicted countries, resources were woefully insufficient. Moreover, malaria proved to be a much more complex problem than initially imagined. Parasites gained immunity to a succession of chemically synthesized drugs, while mosquitoes acquired immunity to a variety of insecticides, most notably DDT, which had showed such enormous promise during the Second World War. In some areas blighted by malaria, its transmission and mortality have stabilized, but in others new drug-resistant strains have emerged (Fig. 9.2). Malaria-bearing mosquitoes have also found new breeding sites in the pitted ground in and around rapidly developing cities.<sup>13</sup> The same trends, combined with global trade and climate change, have led to increasing outbreaks of other vector-borne diseases such as dengue fever.

These diseases are not confined to the developing world but their burden falls most heavily upon it, especially in the case of malaria. Most of the 250 million cases of malaria which are recorded each year, and the 1 million deaths from this disease, occur in low-income countries. Indeed, the populations of poor and affluent countries experience disease in strikingly different ways. In high-income countries, the principal causes of death are, in

13 Randall M. Packard, *The Making of a Tropical Disease: A Short History of Malaria* (Baltimore, MD: Johns Hopkins University Press, 2007); James L. A. Webb Jr, *Humanity's Burden: A Global History of Malaria* (Cambridge University Press, 2008).



Figure 9.2 A woman looks out of her window next to a banner during a preventive campaign against dengue fever organized by the health ministry in a shantytown in Lima, Peru in 2012

(© Pilar Olivares/Reuters/Corbis)

descending order, heart disease, cerebrovascular diseases like stroke, cancers of the respiratory tract, and Alzheimer's and other forms of dementia. These are largely diseases of an aging population; or more precisely, a population that has been able to grow old because of the effective conquest of most infectious diseases. In low-income countries, by contrast, infectious diseases continue to loom large. The main causes of death are, in turn, lower respiratory infections, diarrhea, HIV/AIDS, heart disease, and malaria. Most of these diseases can be easily prevented and either cured or managed with the use of drugs.<sup>14</sup>

The role of socio-economic inequality is clearly evident in these mortality profiles but we should not ignore the considerable differences which exist within individual countries. Nations such as India, which have developed rapidly in recent years, now possess a large middle class with a mortality profile little different from Western countries. In fact, obesity-related diseases such as diabetes mellitus have been growing in many countries as food preferences change (towards highly processed and sugary foods) and habits

<sup>14</sup> Paul Farmer, *Infections and Inequalities: The Modern Plagues* (Berkeley, CA: University of California Press, 1999).

become more sedentary. The same is true of certain types of cancer. Cancer was once considered a Western disease, but from the mid-twentieth century it became apparent that its incidence was increasing in most countries as they industrialized and urbanized, partly due to pollutants and partly due to diet and lifestyle. Now, there are proportionately more deaths from certain cancers in the developing world because of less consistent public health education and fewer legislative restrictions. Lung cancer provides probably the clearest example: it has fallen markedly in the developed world but is increasing in most developing countries. But in all countries, the incidence of certain forms of cancer – particularly lung cancer – is more common among persons of lower social class and educational attainment, the chief risk factor being smoking.

### Globalization

Although non-infectious diseases are a growing problem globally, we ought not to assume that epidemics are a thing of the past. The emergence of HIV/AIDS in the 1980s has served as a reminder of the potential of Nature to generate new infections and of the man-made world to disseminate them. From the very beginning, AIDS drew attention to the interconnect-edness of the modern world. Lurid stories, focusing on the sexual exploits of a supposed “patient zero,” awakened fears about the propensity of new infections to pass swiftly over vast distances by air travel; not least because “patient zero” was an air steward. As a consensus began to form around the theory that HIV had mutated from simian forms of retrovirus in tropical Africa, there was also intense speculation about what other diseases might emerge from this “hot-house” of infection. Outbreaks of previously obscure fevers like Ebola reinforced the impression that fresh dangers awaited humanity in the tropics, and that they might now spread easily to other parts of the world.

The threat from these so-called “emerging” diseases led to calls for the “securitization” of health.<sup>15</sup> Disease, it was argued, had the capacity to destabilize regimes and to threaten the newly globalized economy. The language and practices of public health began to change, with more emphasis being placed on surveillance and containment. This tendency became even more apparent after the terrorist attacks of 9/11, after which fears began to circulate

<sup>15</sup> Andrew T. Price-Smith, *Contagion and Chaos: Disease, Ecology, and National Security in the Era of Globalization* (Cambridge, MA: MIT Press, 2009).



about biological warfare. The arrival in 2003 of Severe Acute Respiratory Syndrome (SARS) crystallized this trend, and the war against terror and the war against disease began to coalesce. These specific fears also reflected growing unease about globalization: about economic insecurity, the destruction of established communities, and mass migration. SARS was, above all, a disease of “global” cities such as Hong Kong, Singapore, and Toronto; cities famed for their large diaspora communities and as hubs of global trade.<sup>16</sup>

This defensive mind-set framed the response to some of the major disease threats of the coming decade, most of which involved influenza. During the 2000s, there were numerous outbreaks of a deadly form of influenza, H<sub>5</sub>N<sub>1</sub> or “bird flu,” usually beginning in East or Southeast Asia, but in some cases spreading as far as Western Europe. These outbreaks destroyed the livelihood of many farmers and killed some humans who came into close contact with infected poultry. But the disease did not appear to pass from person to person, which was the great fear of most public health officials. When a more transmissible strain of influenza – H<sub>1</sub>N<sub>1</sub> or “swine flu” – was reported in Mexico in 2009, many believed that a serious pandemic was in the offing. Initially, the death rate appeared to be higher than that for ordinary “seasonal” influenza, but while the disease was officially declared a pandemic, the expected high mortality failed to materialize.

What characterized all these outbreaks was the emphasis placed on surveillance, containment, and contingency measures – the stockpiling of vaccines and anti-viral drugs, and emergency planning for large organizations. But influenza specialists such as Robert Webster and organizations such as Compassion in World Farming also drew attention to the origin of such diseases. In particular, they highlighted the intensive production of poultry and pigs, which had increased massively in recent years, especially in Asia. These “factory farms” were said to escalate the risks of a mutation that was both lethal and highly contagious. The Director of the World Health Organization also warned in 2012 that the regular dosing of intensively reared animals with antibiotics was contributing to the growing problem of diseases resistant to treatment. Indeed, the phenomenon of antibiotic resistance may herald a return to an era in which even common infections may once again kill, reversing the gains of over half a century.

As consciousness of the interdependence of human and animal health grows, there have been calls for more holistic public health strategies, and

16 David P. Fidler, *SARS, Governance and the Globalization of Disease* (Houndmills: Palgrave Macmillan, 2004).



organizations such as the WHO, WTO, and the World Organization for Animal Health have begun to co-ordinate their efforts. But the problem is a difficult one to solve, for it is structural in nature. Factory farming and the associated risk of new and drug-resistant diseases is driven above all by urbanization and the lifestyle changes normally associated with it. Those parts of the world bearing the brunt of rapid urbanization thus face difficult decisions about how to manage development in the interests of health. Their actions will affect not only their own communities but possibly the rest of the world.

### Further reading

- Bhattacharya, Sanjoy. *Expunging Variola: The Control and Eradication of Smallpox in India, 1947–1977*. Hyderabad: Orient Longman, 2006.
- Echenberg, Myron. *Africa in the Time of Cholera: A History of Pandemics from 1817 to the Present*. Cambridge University Press, 2011.
- Plague Ports: The Global Urban Impact of Bubonic Plague, 1894–1901*. New York University Press, 2007.
- Farmer, Paul. *Infections and Inequalities: The Modern Plagues*. Berkeley, CA: University of California Press, 1999.
- Fidler, David P. *SARS, Governance and the Globalization of Disease*. Houndmills: Palgrave Macmillan, 2004.
- Hamlin, Christopher. *Cholera: The Biography*. Oxford University Press, 2009.
- Harrison, Mark. *Contagion: How Commerce Has Spread Disease*. New Haven, CT, and London: Yale University Press, 2012.
- The Medical War: British Military Medicine in the First World War*. Oxford University Press, 2010.
- Ladurie, Emmanuel Le Roy. “A concept: the unification of the globe by disease.” In *The Mind and Method of the Historian*. Brighton: Harvester, 1981, pp. 28–83.
- McNeill, J. R. *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914*. Cambridge University Press, 2010.
- Mishra, Saurabh. *Pilgrimage, Politics, and Pestilence: The Haj from the Indian Subcontinent, 1860–1920*. New Delhi: Oxford University Press, 2011.
- Packard, Randall M. *The Making of a Tropical Disease: A Short History of Malaria*. Baltimore, MD: Johns Hopkins University Press, 2007.
- White Plague, Black Labor: Tuberculosis and the Political Economy of Health and Diseases in South Africa*. Berkeley, CA: University of California Press, 1989.
- Phillips, Howard, and David Killingray, eds. *The Spanish Influenza Pandemic of 1918–19: New Perspectives*. London: Routledge, 2003.
- Price-Smith, Andrew T. *Contagion and Chaos: Disease, Ecology, and National Security in the Era of Globalization*. Cambridge, MA: MIT Press, 2009.
- Webb, James L. A., Jr. *Humanity’s Burden: A Global History of Malaria*. Cambridge University Press, 2008.

## The politics of smallpox eradication

EREZ MANELA

In May 1806, US president Thomas Jefferson wrote a letter to Edward Jenner, the English physician who had discovered the smallpox vaccine a decade earlier. "Having been among the early converts, in this part of the globe, to its efficiency," Jefferson wrote, "I took an early part in recommending it to my countrymen." He continued:

I avail myself of this occasion of rendering you a portion of the tribute of gratitude due to you from the whole human family. Medicine has never before produced any single improvement of such utility . . . You have erased from the calendar of human afflictions one of its greatest. Yours is the comfortable reflection that mankind can never forget that you have lived.

The discovery, Jefferson concluded, would ensure that "future nations will know by history only that the loathsome small-pox has existed."<sup>1</sup>

As it turned out, the US president was prescient if somewhat premature. It was only in 1977, 171 years after that letter was written, that the last naturally occurring human smallpox infection abated. Why did it take so long? Part of the answer lies in technology. The global eradication of smallpox required techniques to manufacture vaccine on a vast scale and, even more importantly, eradication had to await the advent of freeze-dried vaccine, which could be preserved and transported without need for refrigeration. Yet no less important for eradication were the developments in the theory and practice of international politics that occurred during those years. Global eradication required, first, the broad acceptance of the notion that disease control was properly a global, rather than local or national task. In addition, it required the development and operation of international organizations, namely the World Health Organization, which could serve as institutional platforms for such a mammoth undertaking. It is this latter story, of the

1 Thomas Jefferson to Edward Jenner, May 14, 1806, The Thomas Jefferson Papers, Series 1, General Correspondence, Library of Congress, Washington, D.C.

political developments that preceded and eventually allowed for the eradication of smallpox, which is the focus of this essay.

### Before vaccination: smallpox and its control to 1800

Smallpox, a deadly, infectious disease, had plagued humankind for millennia. Caused by the virus *variola major*, in its most typical form it killed some of 30–40 percent of its victims within weeks of infection. Survivors were often badly scarred, though they did acquire lifelong immunity. In many regions of the world the disease remained endemic for centuries, essentially a disease of childhood. But at other times and places it could also cause sudden, devastating epidemics, hitting all segments of the population.<sup>2</sup> It is hard to say with precision when smallpox first appeared, likely crossing over to human hosts from animal populations. There is evidence that suggests that smallpox afflicted the ancient Egyptians – Ramses V may have been a victim – and the disease can be positively identified in Chinese and Indian medical texts from the early Middle Ages. If, as John R. McNeill has recently argued, disease can be considered a historical agent when it has a differential impact on groups involved in a historical encounter, then smallpox played its greatest, most destructive role on the stage of history as probably the deadliest among the horde of Old World pathogens that crossed the Atlantic around the turn of the sixteenth century to decimate some 90 percent of the immunologically unprepared native populations of the Americas.<sup>3</sup>

Techniques to induce immunity to smallpox by introducing the pathogen into the body in an attenuated form date to ancient times, and had been practiced across Asia and Africa for centuries before arriving in Europe. Some of these techniques involved harvesting dried smallpox scabs from victims of the disease, grinding them into a powder, and then introducing them into the body either through inhalation or by puncturing the skin. In other cases, infective material was taken directly from pustules on the bodies of victims. In the history of medicine the best known story about the introduction of such a technique – known as inoculation or variolation – into Europe is through the initiative of Lady Mary Wortley Montagu, wife of the British ambassador to the court of the Ottoman sultan. Lady Mary had lost several members of her family to smallpox and had herself been scarred by the disease, so when

2 Cyril William Dixon, *Smallpox* (London: J. & A. Churchill, 1962), chapter 10.

3 John R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914* (Cambridge University Press, 2010); Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport, CN: Greenwood, 1972), pp. 42–62.

she heard of this practice while stationed in Istanbul she was understandably interested. In 1717 she returned to Britain to advocate for the practice; in 1721 she had her daughter publicly inoculated with the blessing of several leading physicians in Britain, including Hans Sloane, president of the Royal Academy, whose involvement conferred a royal blessing of sorts on the practice.<sup>4</sup>

The leading role assigned to Lady Mary has been challenged by some scholars, who note that similar practices were already prevalent among peasants in some parts of Europe decades before Lady Mary's discovery. Moreover, the practice was coming to the attention of other prominent figures in the Atlantic world at around the same time as it did to Lady Mary's, with interest driven at least in part by a spate of highly visible smallpox victims around the turn of the eighteenth century.<sup>5</sup> For example, the Reverend Cotton Mather, the Puritan divine of Boston, first learned about inoculation in 1707 from African slaves and, after later reading, in the *Transactions* of the Royal Society of 1714, that the procedure had been for decades practiced among the Ottomans and "other Asiaticks," became a leading advocate of inoculation in New England when a smallpox epidemic broke out there in 1721. Mather, following his African interlocutors, described the procedure as "an Infallible Praeservative" that was "attended with a Constant Success," but it was fiercely controversial in Boston. Mather had the support of a few other clergymen but only one physician, Zabdiel Boylston, agreed to administer the procedure.<sup>6</sup>

The demonstrated success in Boston – the death rate among the inoculated was 2 percent, compared to 14 percent or more among the unprotected – played a role, along with Lady Mary's advocacy and additional reports from Asia, in helping convince prominent persons in Britain to attempt it, and the Princess of Wales had her children inoculated in 1721.<sup>7</sup> In the ensuing decades inoculation spread, albeit slowly, to other European courts, often following the smallpox-related deaths within royal families; by the 1770s it had been performed in royal courts in France, Russia, and a number of Scandinavian countries.<sup>8</sup> The practice also spread among commoners in the course of the

4 Philip H. Clendenning, "Dr. Thomas Dimsdale and smallpox inoculation in Russia," *Journal of the History of Medicine and Allied Sciences* 28:2 (April 1973), 109–110.

5 Genevieve Miller, "Putting Lady Mary in her place: a discussion of historical causation," *Bulletin of the History of Medicine* 55:1 (Spring 1981), 2–16.

6 Eugenia W. Herbert, "Smallpox inoculation in Africa," *Journal of African History* 16:4 (1975), 539–542.

7 Shirley Roberts, "Lady Mary Wortley Montagu and the Reverend Cotton Mather: their campaigns for smallpox inoculation," *Journal of Medical Biography* 4:3 (August 1996), 129–136.

8 Anne Eriksen, "A case of exemplarity: C. F. Rottböll's history of smallpox inoculation in Denmark–Norway, 1766," *Scandinavian Journal of History* 35:4 (December 2010), 351–370.

eighteenth century, but throughout it remained controversial. After all, it involved the introduction of the infective agent into a healthy body, with a 1–2 percent death rate among the inoculated. What's more, it quickly became clear that inoculated persons were contagious and could spread the illness to others for a number of weeks following the procedure. In any case, outside the royal houses precise data about the scale and efficacy of smallpox inoculation in Europe and elsewhere, and about its effect, if any, on demographic trends, are sparse and inconclusive.<sup>9</sup>

### Vaccination: transnational spread and national politics in the 1800s

In 1796 an English country physician named Edward Jenner made a discovery that proved a crucial milestone in the control of smallpox, and eventually led to its eradication. The story is among the most famous in the annals of medicine. Jenner had noted that milkmaids seemed to have smooth skin, unblemished by the telltale scars of smallpox that were common in England at the time. He also noted that they often seemed to contract the much milder cowpox, a bovine version of the illness which, we know now, is caused by a virus similar but not identical to *variola major*. Though Jenner, of course, knew nothing about viruses, he nevertheless surmised, based on what was by then a long experience with the inoculation method, that the deliberate introduction of cowpox material into a human body would confer immunity to smallpox. Unencumbered by the regulations that today control experiments in human subjects, he inoculated a servant boy, James Phipps, with cowpox material taken from a local girl, Sarah Nelmes, who had become infected while milking cows on her father's farm. Several weeks later, after recovering from the mild illness induced by the procedure, Phipps was inoculated with smallpox material and proved immune. Jenner named the procedure vaccination, after the Latin *vacca*, or cow.<sup>10</sup>

In the ensuing decades the practice of vaccination spread across the world, moving across Europe and then the globe, following the pathways of commerce and empire and tracing global networks of knowledge and power. In many ways the process paralleled the spread of inoculation in the previous

9 Compare Peter Razzell, *The Conquest of Smallpox: The Impact of Inoculation on Smallpox Mortality in Eighteenth Century Britain* (Firle: Caliban Books, 1977) and Deborah Christian Brunton, "Pox Britannica: smallpox inoculation in Britain, 1721–1830" (Ph.D. thesis, University of Pennsylvania, 1990).

10 Dixon, *Smallpox*, chapter 12.

century, except that it was more rapid and, perhaps more important, reversed in its direction. If in the case of inoculation Europeans were laggards, adopting only very late a practice that had been common in Asia and Africa for centuries, vaccination reversed the direction of flow, moving from its European – indeed, English – origins, to spread around the globe. Thus, nearly overnight inoculation was transformed from a technique at the cutting edge of medical progress that Europeans could learn from “Asiaticks” into a symbol of backwardness, an ancient and timeless “tradition” that had to be eradicated and replaced by its “modern” counterpart.

Given the unprecedented nature of Jenner’s discovery, the spread of vaccination around the world was rapid. Indeed, within a decade the practice had spread across Europe and into the Russian and Ottoman empires. The Spanish court sent missions to carry vaccine material to its American possessions and from there across the Pacific to Manila. British physicians carried it to India, China (where the British East India Company established a vaccination station in Canton by 1815), and the East Indies, where the famed colonial administrator Sir Stamford Raffles introduced it to Java. In the age before refrigeration and freeze-drying, the vaccine was preserved on long sea voyages through a human chain of infection. Perhaps twenty persons – sometimes volunteers, but at other times young boys, often orphans – would be taken on board for the journey. One was vaccinated before the ship left and, as he developed an infection, within a week or so infective material was taken from his pustules and used to vaccinate the next person. Thus, the virus was transferred from one body to another and as a result at least one person with an active infection, and therefore with pustules containing the precious material, would be present on board when the ship arrived at its destination. In this way, the technique also quickly crossed the Atlantic into North America. In the United States Dr Benjamin Waterhouse of Massachusetts administered his first vaccinations in 1800. Waterhouse also sent vaccine material to Thomas Jefferson, who used it to vaccinate his entire household and later wrote the famous letter to Jenner congratulating him on his discovery and anticipating the eradication of smallpox.<sup>11</sup>

As the practice of vaccination spread globally over the next century, the political valence of disease control was also changing, first from a local into a national issue and then into a global concern, thus making national politics, and later international politics, a central aspect of the process. It

11 John Z. Bowers, “The odyssey of smallpox vaccination,” *Bulletin of the History of Medicine* 55:1 (Spring 1981), 17–33; Ian and Jenifer Glynn, *The Life and Death of Smallpox* (London: Profile Books, 2004), chapter 9.

was during this period that the control of disease also came to be viewed as an important governmental responsibility in the emerging nation states of Europe, both reflecting and shaping the wider state-building projects that sought to delineate and control national boundaries, and to render populations more legible and productive.<sup>12</sup> At about the same time as the emergence of *national* health regimes, *international* health regimes also came into being when successive cholera epidemics in Europe and North America prompted a series of conferences among the major powers, and generated international treaties that established and regulated international quarantine regimes.<sup>13</sup>

But the quarantine regimes of the nineteenth century, though concluded in the international arena, still constructed disease control as primarily a national task, even as they instituted mechanisms of international co-operation to achieve it. The treaties, after all, aimed to help each government ensure that its own territory remained contagion-free rather than to control disease on a global scale. In this context, the prevalence of disease elsewhere, certainly outside Europe, was important only to the extent it could travel and endanger European populations or possessions. For smallpox to be eradicated, this perspective had to change.

### The rise of global health

By the turn of the twentieth century, the growing acceptance of the germ theory of disease introduced a range of new methods of disease control. These new discoveries – most famously by Louis Pasteur in France and Robert Koch in Germany – were quickly implemented around the world, not least by colonial powers eager to make newly acquired tropical territories safe for their personnel and to highlight the “civilizing” effect of their rule. One of the best known of these programs was the campaign to control the mosquito-born diseases yellow fever and malaria in the Panama Canal Zone, whose success made the canal project possible and established the place of US Army surgeons Walter Reed and William Gorgas in the annals of public health. But the United States pursued disease control programs across its newly acquired overseas possessions, including in Cuba and the Philippines,

12 Peter Baldwin, *Contagion and the State in Europe, 1830–1930* (Cambridge University Press, 1999).

13 Norman Howard-Jones, “Origins of international health work,” *British Medical Journal* 1 (May 1950), 1032–1046; Howard-Jones, *The Scientific Background of the International Sanitary Conferences, 1851–1938* (Geneva: World Health Organization, 1975).

as did other powers in their respective territories.<sup>14</sup> At the same time the Rockefeller Foundation began to fund disease control programs abroad, largely in Latin America and in China.<sup>15</sup> It was then that the idea of disease control as a global problem, rather than a national or even international one, began to take root, though even the Rockefellers did not yet attempt anything close to a global campaign.

The establishment of the League of Nations Health Organization (LNHO) after the First World War marked yet another stage in the rise of disease control as a field amenable to global action. LNHO leaders imagined their responsibilities as global, but with few resources at their disposal they could hardly put this notion into practice and thus largely focused on collecting information and developing international standards for medical practices – for example, for recording causes of death. The professional groupings that formed around the LNHO also began to cohere into an “epistemic community,” a network of public health experts whose interconnections and shared outlook laid the ground for the postwar establishment of the World Health Organization (WHO) and, more generally, the rise of the postwar global health establishment.<sup>16</sup>

Despite the wide spread of vaccination in the nineteenth century, at the turn of the twentieth century smallpox was still endemic in much of the world. Even at mid-century, when more systematic vaccination had largely eradicated the disease in Europe and North America, it remained endemic in many parts of the Global South including South Asia, Sub-Saharan Africa, Indonesia, and Brazil.<sup>17</sup> Thus, as the institutionalization of international health entered a new stage in the wake of the Second World War, the WHO emerged from the ashes of the LNHO much more ambitious than its predecessor. Its designation as a *world* organization reflected the global ambitions of its founders: it would serve not nations, but humanity itself.

14 Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Durham, NC: Duke University Press, 2006).

15 John Farley, *To Cast out Disease: A History of the International Health Division of the Rockefeller Foundation, 1913–1951* (Oxford University Press, 2004); Anne-Emanuelle Birn, *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico* (Rochester, NY: University of Rochester Press, 2006); Marcos Cueto, *Missionaries of Science: The Rockefeller Foundation and Latin America* (Bloomington, IN: Indiana University Press, 1994).

16 Neville M. Goodman, *International Health Organizations and Their Work* (London: J. & A. Churchill, 1952); Norman Howard-Jones, *International Public Health Between the Two World Wars – the Organizational Problems* (Geneva: World Health Organization, 1978).

17 Frank Fenner et al., *Smallpox and Its Eradication* (Geneva: World Health Organization, 1988), chapter 8.



But by the time the WHO's ambitious constitution was ratified in 1948 the Cold War was in full force. The Soviet Union and the other Eastern Bloc countries withdrew from the organization, suspicious of its intentions. This meant that the WHO's first major campaign, the ambitious effort to eradicate malaria that began in 1955, was largely a US-backed initiative. It had no Soviet participation and, moreover, it blatantly reflected US Cold War strategic concerns, focusing on regions, such as Southeast Asia, where Washington wanted to increase its influence, and slighting those, such as Africa, that were deemed less important.<sup>18</sup>

### Smallpox eradication as Cold War politics

In May 1958, Dr Viktor M. Zhdanov, Deputy Minister of Health of the Soviet Union, arrived in Minneapolis, Minnesota to attend the annual meeting of the WHO's governing body, the World Health Assembly (WHA). Reflecting Soviet premier Nikita Khrushchev's new policy of "peaceful coexistence" with the West, this visit marked the first time that a Soviet delegation had been sent to that forum since the establishment of the WHO ten years earlier. And Zhdanov made his mark, calling on the organization to launch a global campaign to eradicate smallpox, one of humankind's oldest and deadliest diseases. Mindful of the meeting's venue, he began his call with a quote from the letter that Thomas Jefferson had written to Edward Jenner more than a century and a half earlier. The time has come, he suggested, to fulfill Jefferson's prediction that "future nations will know by history only that the loathsome small-pox has existed."

Zhdanov's call suggested that global eradication of smallpox be pursued using the methods that had previously worked in the Soviet Union. He proposed a five-year plan of compulsory vaccination of the entire population of endemic countries, though it allowed for accommodations in cases where compulsory vaccination was not feasible. The justification he offered for pursuing global eradication was a practical one, recognizing the world's growing interconnectedness and the global circulation of pathogens. The Soviet Union, though it had eradicated endemic smallpox, still counted hundreds of cases annually due to importations across its long borders with endemic countries such as Iran and Afghanistan. And with the growth of air travel, even those countries of the Global North that did not border endemic

18 Javed Siddiqi, *World Health and World Politics: The World Health Organization and the UN System* (London: C. Hurst, 1995), pp. 104–109, 141–145.

regions had to maintain costly vaccination programs to protect their populations against importations. A co-ordinated global campaign, Zhdanov reasoned, would cost much less than the indefinite continuation of such national vaccination programs.<sup>19</sup>

The practical logic seemed unimpeachable, but the political context of the Soviet proposal complicated the US response. Since 1955, the WHO had been committed to the US-backed global Malaria Eradication Program (MEP).<sup>20</sup> The smallpox proposal, then, was a Soviet move to seize the initiative in the international health field. Unsurprisingly, the United States, the WHO's largest donor, did not show much enthusiasm for the idea, and the WHA merely resolved to ask the WHO director general (DG) to prepare a report estimating what such a campaign would require, technically and financially.<sup>21</sup>

The Soviet delegation continued to press for the program at subsequent WHA meetings, aided by the outbreak of a major smallpox epidemic in Pakistan in 1958. But the United States remained unsupportive, and, though the Assembly resolved to urge all endemic countries to launch eradication programs and asked the DG to provide assistance and collect data, it did not allocate any special funds for those purposes.<sup>22</sup> So though smallpox eradication was now officially a WHO priority, without US support the program existed largely on paper, with few funds and only a handful of staff. Its annual budgets ranged from US\$100,000 to US\$200,000, and it employed one medical officer who managed the program in Geneva and four field staff to cover all endemic regions, or much of the Global South.<sup>23</sup> Each year at the WHA the Soviet delegation expressed its frustration with the slow pace of progress, pointedly contrasting the WHO's lackadaisical attitude to the SEP to its massive investment in the malaria eradication program, which was

19 Resolution EB22.R12, "Gifts of smallpox vaccine," Executive Board, 22nd Session, Minneapolis, June 16–17, 1958, *Official Records of the World Health Organization* [ORWHO] 88:7.

20 Randall M. Packard, "Visions of postwar health and development and their impact on public health interventions in the developing world," in Frederick Cooper and Randall M. Packard, eds., *International Development and the Social Sciences* (Berkeley, CA: University of California Press, 1997), pp. 93–118; Socrates Litsios, "Malaria control, the Cold War, and the postwar reorganization of international assistance," *Medical Anthropology* 17:3 (1997), 255–278; Siddiqi, *World Health and World Politics*, pp. 142–143.

21 "Smallpox eradication: report by the Director-General," ORWHO 95 (12th WHA, 1959), 572–588.

22 ORWHO 95, 324–332, and WHA Resolution 12.54, "Smallpox eradication," ORWHO 95, 47, 450–451.

23 Donald Henderson, "Smallpox eradication – a Cold War victory," *World Health Forum* 19 (1998), 114.

consuming a substantial proportion of the organization's budget.<sup>24</sup> Within several years, however, the US government would reverse its position and decide to throw its support behind the SEP.

### Pursuing eradication: from malaria to smallpox

By the early 1960s, it was becoming increasingly clear that the efforts at malaria eradication were fast approaching their limits, and that those limits lay well short of worldwide eradication.<sup>25</sup> The program's basic approach sought to interrupt the transmission of the malaria parasite by targeting its mosquito vector through the use of synthetic residual insecticides, chief among them the ruthlessly efficient dichlorodiphenyltrichloroethane, or DDT. But the massive worldwide use of DDT spraying for malaria control since the Second World War had caused the proliferation of resistant mosquito populations, and the more DDT was used the more prevalent resistance became. In addition, DDT had also come under attack for its environmental effects, as the massive decimation of insect populations reverberated up the food chain and disrupted ecosystems.<sup>26</sup> *Variola*, on the other hand, had no animal vector. It moved directly from one individual to another through close contact, and so its eradication would not require a wider ecological intervention. Smallpox had other epidemiological advantages, too. There was a vaccine with a long history of effective use, few iatrogenic effects, and *variola* did not hide in animals, as the yellow fever virus did, or in asymptomatic individuals, as could happen with polio or tuberculosis. Virtually all non-immune individuals who contracted the virus showed symptoms, and only they could transmit the virus to others.

As the prospects for the global eradication of malaria waned, epidemiologists in the United States and elsewhere began to see smallpox as a more promising target for global eradication. And given the close connections of government officials in the health field with the professional communities and networks outside government – connections that relied on shared background, educational experiences, and membership in professional associations – it did not take long for the view to circulate. When James Watt, the

24 See, e.g., ORWHO 103 (13th WHA, 1960), 241–245; ORWHO 119 (15th WHA, 1962), 102–105.

25 Amy L. S. Staples, *The Birth of Development: How the World Bank, Food and Agriculture Organization, and World Health Organization Changed the World, 1945–1965* (Kent State University Press, 2006), pp. 161–171.

26 This was the focus of Rachel Carson's *Silent Spring* (Boston, MA: Houghton Mifflin, 1962), a seminal text of the environmental movement.

director of the Office of International Health at the US Public Health Service, wrote in 1962 to fellow members of the American Public Health Association to solicit suggestions for eradication programs that the US health establishment should undertake, several proposed smallpox as the leading candidate for global eradication.<sup>27</sup> Success, noted one member, would have significance for the global community much broader than itself: "We must face the cold sober fact that no communicable disease has ever been eradicated throughout the world to date through man's conscious efforts. It would certainly be a salutary thing to prove just once that one communicable disease can be eradicated through man's conscious efforts. Smallpox is my nominee for such a global program."<sup>28</sup>

For the professional agreement on smallpox eradication to find traction, however, it needed to insert itself into the arena of international politics and have top political leaders bless the professional consensus with their support. The opportunity came in the early spring of 1965, with the approach of World Health Day, marked each year on April 7, the anniversary of the founding of the WHO. With the MEP falling short of its goal of global eradication and the escalating war in Vietnam damaging the US reputation in the Third World, the Johnson administration was searching for new ways to display its commitment to international co-operation in public health. As it happened, the WHO had chosen for that year the theme of "Smallpox – Constant Alert," advertised as a reminder for member governments to remain vigilant against the threat of the importation of the disease from the world's endemic areas to regions where the disease had already been eradicated. Why not have the president, proposed an official from the Department of Health, Education, and Welfare (HEW), issue a statement for the occasion highlighting the success of smallpox control in much of the world – namely the Global North – and expressing US support for the WHO's campaign to eradicate it globally? The White House agreed, and the statement proposed by HEW was released with only minor revisions.<sup>29</sup>

The April statement was the first tangible indication of US support for the proposal that Zhdanov had made seven years earlier, and, though still vague

27 James E. Perkins, managing director of the National Tuberculosis Association, to Ernest S. Tierkel, September 26, 1962. A memorandum by T. Aidan Cockburn, September 12, 1962, also ranked smallpox as the top candidate for global eradication. USNA, RG 90, box 22, folder "Association – APHA – Committee on Disease Eradication."

28 Perkins to Watt, August 28, 1962. Underlined in original. USNA, RG 90, box 22, folder "Association – APHA – Committee on Disease Eradication."

29 Levy to Holborn, n.d., and Holborn to Horowitz, March 12, 1965, Lyndon Baines Johnson Library [LBJL], White House Central Files, Ex HE/MC, box 6.

in its terms, it laid the ground for a more specific commitment the following month. The United Nations had declared 1965, the twentieth anniversary of its founding, as International Cooperation Year (ICY) and the Johnson administration had been casting around for ways, preferably inexpensive, to show leadership in this field.<sup>30</sup> For Johnson and his advisers, then, smallpox eradication was exactly what the doctor ordered, a cheap, uncontroversial way to show US commitment to international co-operation. Therefore the World Health Assembly gathered for its annual meeting in Geneva in May, the White House announced on May 18, that “as long as smallpox exists anywhere in the world, no country is safe from it.” Summarizing the recently established expert consensus, Johnson asserted that the “technical problems” of global eradication were “minimal,” while the “administrative problems,” including assuring vaccine supplies, personnel, and co-ordination, could be solved through international co-operation. The United States, the statement concluded, was therefore “ready to work with other interested countries to see that smallpox is a thing of the past by 1975.”<sup>31</sup>

Johnson’s announcement gave few details as to what the United States would do and did not guarantee any resources. But the dramatic, public commitment from the president himself echoed widely and gave succor to supporters of the global eradication program. In Geneva, the US delegation announced the commitment to the WHA with some fanfare and reported with evident satisfaction that the assembly “displayed keen interest in the announcement”: The “presiding officer expressed deep appreciation for president’s statement” and the WHO Deputy DG later congratulated the US delegates on the announcement’s “ideal timing and content.”<sup>32</sup> Within a few days, US representatives in endemic countries, prodded by American epidemiologists on the ground, began to propose ways of putting the commitment into effect. Integrating smallpox vaccination into ongoing US-supported health programs, wrote one, presented a “tremendous opportunity for dramatizing” the president’s pledge to support smallpox eradication worldwide.<sup>33</sup>

30 “President Johnson on International Cooperation Year,” Department of State, *Foreign Affairs Outline, 1965: International Cooperation Year*, in USNA, RG 90, box 42, folder “International Cooperation Year.”

31 White House press release, May 18, 1965, LBJL, White House Central Files, Ex HE/MC, box 6.

32 US Mission, Geneva, telegram to SecState, May 19, 1965, USNA, RG 59, box 3159, folder “HLTH 3, Organizations and Conferences, WHO, 6/1/65.”

33 US embassy, Lomé to DOS, May 22, 1965, USNA, RG 59, box 3172, folder “HLTH – Health and Medical Care – T.”

In the domestic politics arena in the United States, however, the rhetoric of international co-operation had its limits. While Johnson described the US decision to support the SEP and other international health initiatives as a move toward transcending Cold War conflicts, US officials justifying such programs domestically often reverted to the traditional rhetoric of Cold War rivalry, presenting them as an antidote against the spread of communism among the world's poor and downtrodden. Such assistance was "a tool" which could "penetrate any Iron or Bamboo curtain to reach the minds and the hearts of man." It would promote world peace, showcase the United States as "the fountainhead of medicine," and help US allies combat the temptations of communism.<sup>34</sup> US support for the SEP, then, could have conflicting justifications for different audiences. For the international community and domestic internationalists, it was about transcending the Cold War. To hardline anti-communists, it could be about winning it. In this view, in working with the USSR on smallpox eradication the United States would enlist the Soviets to assist in their own demise.

### The politics of vaccine manufacture

For those who needed to carry out the task, however, political considerations of a wholly different sort took precedence. For one, the SEP required vast quantities of vaccine – more than 2 billion doses, it turned out – and only the USSR initially had the necessary infrastructure in place to produce that many doses, because Western manufacturers had found smallpox vaccine unprofitable to make.<sup>35</sup> So when Donald A. Henderson, the Ohio-born physician who was chief of the Epidemic Surveillance Section of the US Public Health Service's Communicable Disease Center (CDC) in Atlanta, moved to Geneva to head the program, his first priority was to ensure that Soviet vaccine donations to the program would continue.<sup>36</sup> His position was none too comfortable. The Soviets had initially been unhappy with his appointment, protesting that the SEP had been a Soviet initiative and so a Russian should have been appointed to lead it. So the following May, when Henderson approached the head of the Soviet

34 Undated document, LBJL, Office Files of Joseph A. Califano, box 29 (1737), folder "Health."

35 Fenner et al., *Smallpox and Its Eradication*, pp. 469, 564.

36 Confidential memorandum from Chief SE to Director CD, October 28, 1968, WHO Archive, Smallpox Eradication Program papers [WHOA-SEP], box 303, folder 30. The CDC was later renamed the Centers for Disease Control and Prevention, though the acronym CDC was kept.

delegation, Dmitry Venediktov, during the WHA meeting, to request that the vaccine donations continue, he recalls being somewhat apprehensive. But the Russian explained that, though he could not officially guarantee vaccine donations more than one year at a time, the nature of the Soviet planned economy was such that once a certain annual production quota was in place it was likely to be reliably met each year.<sup>37</sup>

For the next decade, Henderson continued to place great importance on preserving good relations with the Soviets and worked assiduously to nurture the collaboration. Throughout his time as program head he was careful to give the Soviet Union credit for initiating the program. He also worked closely with Russian officials to resolve problems, for example with the quality of Russian vaccine, in a way that avoided any public embarrassment for the Russians. Any issues with the Soviets, he instructed his WHO colleagues, were to be “resolved quietly” and should “not be openly discussed” so as to avoid straining the relationship.<sup>38</sup> Before each year’s WHA, Henderson met with both the US and the Soviet delegation to report on the program’s progress, and relied on them to keep the issue on the agenda. Henderson also relied on the help of American and Soviet diplomats posted in endemic countries to exert pressure on health officials, whether at WHO regional offices or in national health bureaucracies, who were deemed insufficiently co-operative with the program. Henderson worked with Soviet counterparts to establish and maintain quality controls for Soviet vaccine production and to vet Russian candidates for program positions. Finally, the Moscow Research Institute for Viral Preparations shared responsibility with the CDC lab in Atlanta for advanced analysis of specimens taken in the field.<sup>39</sup>

In the end, this much is clear: without the combination of US funding and Soviet vaccine, and without the institutional momentum and political support that the two superpowers provided for the program, the SEP could not have gotten off the ground, much less found success. Of the program’s total US\$98 million price tag, about a third came from the budget of the WHO and other international organizations, to which the United States was the leading donor; Washington also contributed an additional US\$25 million in direct

37 Henderson, “Smallpox eradication,” 115–116.

38 Confidential memorandum from Chief, Smallpox Eradication to Director, Communicable Diseases, October 28, 1968, WHOA-SEP, box 303, folder 3.

39 Henderson to Assistant DG Payne, “Summary report – visit to Moscow to discuss matters pertinent to the SE Program,” July 27, 1967, WHOA-SEP, box 303, folder 30; Henderson, “Smallpox eradication,” 116–117.

payments to the program account.<sup>40</sup> This was, to be sure, small change in comparison to US military spending during the same period. It was even much less than had been spent on the malaria eradication program. But it was nevertheless crucial for the SEP's success. The Soviet Union, on the other hand, contributed the lion's share of the vaccine; nearly 1.7 billion doses altogether out of the roughly 2 billion used in the course of the global eradication efforts.<sup>41</sup>

### Into the field: negotiating "tradition" and resistance

Even with the Cold War superpowers locked in competitive collaboration, how was it possible to vaccinate billions of individuals across dozens of nations and in some of the world's most impoverished, inaccessible regions? One of the SEP's defining characteristics, after all, was the application of homogenizing, modern scientific knowledge on a diverse array of local practices in the Global South, where many communities already had long-standing practices intended to ameliorate and explicate the encounter with smallpox. Indeed, the standardization of such things as vaccine production and quality, vaccination techniques, and methods of epidemic surveillance and control stood at the center of the program's *raison d'être* and constituted for its leaders a *sine qua non* of global eradication.

Thus, in various regions, SEP personnel, in conjunction with national and local health officials, had to contend with long-standing modes of dealing with smallpox that integrated the illness into elaborate indigenous belief systems and medical practices. In parts of West Africa, for example, this meant negotiating the co-operation or acquiescence of priests of the smallpox "fetish" *Sopona*. By far the largest consumer of SEP vaccine was the Indian subcontinent, but here the program had to contend with the worship of the smallpox deity *Sītālā mata* and the practices associated with it.<sup>42</sup> Meanwhile, in rural Afghanistan SEP vaccinators had to find ways to work around purdah practices that rendered access to women and children difficult.<sup>43</sup> They also had to get practitioners of the long-established method of variolation to cease their practice or else trade their powdered-scab material for SEP-supplied

40 Fenner et al., *Smallpox and Its Eradication*, p. 464. 41 Ibid. pp. 469, 564.

42 Ibid. pp. 716, 887–888. For a critical approach to the interaction of vaccination and variolation in India, see Frédérique Apffel Marglin, "Smallpox in two systems of knowledge," in Frédérique Apffel Marglin and Stephen A. Marglin, eds., *Dominating Knowledge: Development, Culture, and Resistance* (Oxford: Clarendon Press, 1990), pp. 102–144.

43 Henderson to Millar, May 29, 1967, WHOA-SEP, box 159, folder 378.



vaccine, efforts that included legislation and enforcement, community outreach, and even the circulation of appropriate morality tales such as one entitled “A variolator gives up his profession and encourages his son to become a vaccinator.”<sup>44</sup>

The absolute nature of the program’s goal – smallpox was to be not simply controlled but entirely eradicated worldwide – meant that any resistance to its homogenizing requirements had to be overcome, either negotiated away or, if necessary, broken. Pressure on individuals who resisted vaccination took various forms: insistent verbal persuasion, the application of social and legal pressure, offers of payment, and, at the extreme, forcible vaccination conducted through military-style raids. In one well-known example, a top international SEP official in India later recalled how he had led a team of vaccinators that, accompanied by Indian military troops, broke in the dead of night into the home of a tribal leader in a remote village located in what was then southern Bihar state. The man believed it was his religious duty to resist vaccination. He was subdued and vaccinated only after a violent struggle, after which he agreed to allow the vaccination of the other inhabitants of the village.<sup>45</sup>

While vaccination using physical force was atypical, various degrees of resistance shadowed the program in many regions. Early assumptions that resistance was the result of “traditional” beliefs opposed to modern science proved shaky as studies found that such beliefs did not correlate well with resistance to vaccination. Rather, it was often the association of vaccination campaigns with the exercise of power by the government or outsiders that explained suspicion of the program, especially in relatively isolated areas where residents associated government officials on the scene with taxation, conscription, or other predations and were generally suspicious of the intentions and motives of outsiders.<sup>46</sup> Henderson himself professed to dismiss the

44 An undated narrative by A. G. Rangaraj, SEP chief in Afghanistan. On the program’s battle against variolation, see also Chief SE/HQ to Regional Director, SEARO, October 30, 1967, where Henderson complains that the Afghan government had not yet outlawed the practice; Henderson to Khwaja-Waisuddin, January 17, 1969; Henderson to Rangaraj, November 17, 1969; and an undated report on “Variolation in Afghanistan” by Vladimir Sery, Svend Brøgger, Amin Fakir, and Aminullah Saboor. All in WHOA-SEP, box 159, folder 378.

45 Paul Greenough, “Intimidation, coercion and resistance in the final stages of the South Asian smallpox eradication campaign, 1973–1975,” *Social Science & Medicine* 41 (1995), 633–645. Lawrence Brilliant with Grijja Brilliant, “Death for a Killer Disease,” *Quest* (May/June 1978), 3–10.

46 This was the conclusion, for example, of a study conducted in Dahomey and Togo in the early stages of the SEP. G. E. Robbins, “The role of fetish practices in vaccination campaigns,” in “The SEP Report: Seminar on smallpox eradication and measles control in Western and Central Africa, Proceedings of a meeting held in Lagos, Nigeria, May 13–20, 1969, Part I.” Unpublished CDC report, in WHOA-SEP, box 52, folder 208.

problem of resistance, opining to an Indian colleague that “most of the stories of resistance” were born “in the minds (or perhaps the backsides) of indolent Health Officers . . . who would rather sit than walk and need a convenient excuse to explain why people aren’t vaccinated.”<sup>47</sup> But reports from the field were not quite so sanguine. One SEP training manual in India explained that resistance was “usually relative rather than absolute and therefore, an attitude of persistence must be developed by the containment team,” and added ominously that persons refusing vaccination should be reported to higher authorities.<sup>48</sup>

On the whole, however, resistance to the SEP took the form of individual acts of defiance and was neither well organized nor particularly widespread. Nowhere across the vast and varied terrain of the program did it encounter a broad anti-vaccination movement, though such movements had been common in North America and Europe in earlier decades and also occurred in India, against tuberculosis immunization, in the 1950s.<sup>49</sup> The story of the SEP, therefore, is not simply one of local resistance to external authority, whether national or international. It is also one of accommodation, acquiescence, and collaboration, North–South as well as East–West. After all, the international officials and experts who ran the program could not have carried it out absent the co-operation of innumerable individuals in endemic countries on all levels of society, and the vast majority of SEP fieldworkers, more than 150,000 health personnel all together, were drawn from the local populations.<sup>50</sup>

In part due to such local integration, the program displayed unusual flexibility in adapting its methods to local conditions, whether political, administrative, epidemiological, or cultural. When, soon after it was launched, the goal of 100 percent vaccination proved impractical, the program moved quickly to focus on “surveillance and containment,” an eradication method that sought to identify outbreaks early and concentrate

47 Henderson to De, July 7, 1972, WHOA-SEP, box 193, folder 436.

48 Smallpox Training Seminar, Bhopal, April 29–May 3, 1974. See also confidential report from Ian D. Carter to R. N. Mitra, February 10, 1974. Both in WHOA-SEP, box 194, folder 388.

49 Michael R. Albert, Kristen G. Ostheimer, and Joel G. Breman, “The last smallpox epidemic in Boston and the vaccination controversy, 1901–1903,” *New England Journal of Medicine* 344:5 (February 2001), 375–379; Christian W. McMillen and Niels Brimnes, “Medical modernization and medical nationalism: resistance to mass tuberculosis vaccination in postcolonial India, 1948–1955,” *Comparative Studies in Society & History* 52:1 (January 2010), 180–209.

50 Jonathan Tucker, *Scourge: The Once and Future Threat of Smallpox* (New York: Grove Press, 2001), p. 3.

on vaccinating those living within a certain radius around them in order to prevent transmission beyond the outbreak area.<sup>51</sup> The SEP proved resilient enough to survive the bloody civil wars that erupted in some of its main regions of operation, including Nigeria, Bengal, and the Horn of Africa, often negotiating access to conflict zones with the various state and non-state parties involved. Finally, unlike many of the projects that populate the historiography of international development in the Cold War era, the SEP succeeded in achieving its goal, reaching “smallpox zero” worldwide by the end of 1977, only two years beyond the timeframe that Johnson had set in 1965.

### The SEP and the politics of global health

The eradication of smallpox has often been celebrated in retrospect as the WHO’s crowning achievement. But the common narrative of triumph obscures the fact that the program faced strong opposition for many reasons and from many quarters within the organization throughout its life. For one, top WHO officials, including its longtime director general, the Brazilian epidemiologist Marcolino Candau, were notably unenthusiastic about the program early on. Candau, who was WHO DG from 1953 to 1973, was a malariologist who had studied public health at Johns Hopkins University and cut his epidemiological teeth in the anti-malaria campaigns in South America.<sup>52</sup> He saw the MEP’s failure to achieve eradication as a serious blow to the WHO’s credibility, and worried that a failed attempt to eradicate smallpox might deal the organization’s reputation a further blow. After all, leading figures in the scientific community at the time held that programs aiming at the complete eradication of any infectious disease were impractical for a host of biological, political, economic, and social reasons. Such programs, one prominent expert argued in a widely read book at the time, reflected the hubris of modern man. They were little more than another type of social utopia and were destined for an end even more ignominious than the dustbin of history, namely as “a curiosity item on library shelves.”<sup>53</sup>

When the members of the WHA unanimously resolved, in May 1965, that the global eradication of smallpox was a “major objective” of the organization,

51 D. A. Henderson, “Surveillance – the key to smallpox eradication,” WHO document no. WHO/SE/68.2.

52 Staples, *Birth of Development*, pp. 143–144.

53 René Dubos, *Man Adapting* (New Haven, CT: Yale University Press, 1965), p. 379. See also Fenner et al., *Smallpox and Its Eradication*, p. 388.

top WHO officials tried to stall.<sup>54</sup> On the one hand, they could not disregard the assembly's instructions. On the other, they sought to keep the program at arm's length and make sure it did not embarrass the organization or derail its priorities. The following spring, when Candau submitted his proposed budget for 1967, he requested a sum of US\$2.4 million for the smallpox eradication program, a 16 percent increase in the organization's total budget over the previous year, far larger than usual. When the representatives of the rich nations complained, as expected, that the increase was too steep, Candau gamely offered to cut the proposed SEP budget. The message was clear: the program was not an important priority for the organization. If the rich nations insisted on it, they would have to pay.<sup>55</sup> The DG may have viewed his budget request as a negotiating tactic, but representatives from the Global South chose to take it at face value. In the contentious discussion that followed, the proposal, including the full US\$2.4 million sum for the SEP, passed by the slimmest of margins, on the strength of votes from Third World nations.<sup>56</sup>

Even after the budget's passage, many WHO officials, especially in the all-important regional offices where much of the practical work was to be done, remained skeptical of the program.<sup>57</sup> Many wanted the organization to focus on basic health care and therefore viewed the narrow focus of the SEP with a degree of suspicion; they often saw it as a lower priority, even a distraction, from the central goal of developing the capacity to deliver basic health services.<sup>58</sup> From this perspective, the apparent success of the SEP by the mid-1970s only compounded the problem. In the late 1970s, even as the WHO worked on certifying the achievement of "smallpox zero," the organization moved to emphasize the importance of "horizontal" health interventions over "vertical" programs such as the SEP. "Vertical" programs were ones that targeted one specific health problem for elimination, while "horizontal" interventions aimed for a broad transformation of health care services in

54 US Mission, Geneva, telegram to SecState, May 18, 1965, USNA, RG 59, box 3159, folder "HLTH 3, Organizations and Conferences, WHO, 6/1/65."

55 This is discussed in US Mission, Geneva to DOS, March 30, 1966, and numerous other DOS dispatches in the spring of 1966, all in USNA, RG 59, box 3160, folder "HLTH 3, WHO, 1/1/66."

56 ORWHO 152 (19th WHA, 1966), 258–264, 288–296; US Mission, Geneva to SecState, May 12, 1966, USNA, RG 59, box 3160, folder "HLTH 3, WHO, 5/1/66"; Fenner et al., *Smallpox and Its Eradication*, pp. 414–416.

57 Examples of such institutional resistance are found in a "Strictly Confidential" memorandum from SEARO Regional Director to WHO HQ, May 1, 1967, WHOA-SEP, box 159, folder 378; SEARO Regional Director to DG, March 16, 1967, box 193, folder 416. Also Fenner et al., *Smallpox and Its Eradication*, pp. 417–418; Henderson, "Smallpox eradication," 114–115.

58 Fenner et al., *Smallpox and Its Eradication*, p. 417.

developing countries, emphasizing preventive and primary health care services provided in a context sensitive to the underlying economic, social, and cultural factors at play.<sup>59</sup>

These tensions within the international health establishment came to a head in 1978, just as the SEP was coming to a successful close, when WHO members gathered in Alma-Ata, capital of the Kazakh Soviet Socialist Republic, to mark the organization's thirtieth anniversary. The conference culminated in a major declaration that set ambitious goals. It reaffirmed the broad definition of "health" in the WHO constitution as "a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity," and set for the organization the ambitious goal of achieving "health for all by the year 2000."<sup>60</sup> The Alma-Ata Declaration, viewed as a landmark in the evolution of the organization's commitment to the horizontal approach, defined the goal as the provision of primary health care to all of the world's population.<sup>61</sup> For supporters of such goals, the success of global smallpox eradication was liable to be a distraction, encouraging focus on narrowly technical interventions at the expense of the broader programs envisioned by the declaration.

Despite such ambivalence toward the SEP, however, the WHO was also essential to the program in all its stages, from conception to execution. The institutional framework of international governance and co-operation that the WHO provided gave health officials in the United States and elsewhere a space within which they could conceive and articulate smallpox eradication as a global problem that required a co-ordinated global solution, and then to pursue it as such. Prior to the emergence of international institutions, after all, international health meant little more than treaties on quarantine regulations, which constructed disease control as a national problem requiring defensive measures that reinforced the inviolability of national boundaries rather than a worldwide problem necessitating co-ordinated action on a global scale.<sup>62</sup> The collaborative superpower relationship that defined the program, moreover, would have been unlikely absent the neutral space

59 Sung Lee, "WHO and the developing world: the contest for ideology," in Andrew Cunningham and Bridie Andrews, eds., *Western Medicine as Contested Knowledge* (Manchester University Press, 1997), pp. 24–45.

60 Socrates Litsios, "The long and difficult road to Alma-Ata: a personal reflection," *International Journal of Health Services* 32:4 (2002), 709–732.

61 The full text of the Alma-Ata Declaration is available at [www.who.int/hpr/NPH/docs/declaration\\_almaata.pdf](http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf).

62 Neville M. Goodman, *International Health Organizations and Their Work* (London: J. & A. Churchill, 1952), pp. 40–65.

provided by the WHO framework, one that allowed the bracketing of Cold War political and ideological rivalries and thus made room for acting on a shared discourse of high modernist progress. If the WHO as an organization was sometimes an obstacle that the SEP had to overcome, as a symbolic and collaborative space it was indispensable.

## Conclusion

After three years of a rigorous certification process, the World Health Assembly gathered in Geneva in May 1980 and issued an official proclamation announcing to the world the global eradication of smallpox. Since then, the *variola* virus has remained stored in two recognized repositories in the United States and Russia and, possibly, in unofficial ones elsewhere, and has been the subject of a contentious debate as to whether it should be entirely destroyed or preserved for future scientific research.<sup>63</sup>

The eradication of smallpox was facilitated by an unusual, perhaps unique convergence of factors that existed in international society from the mid-1960s to the mid-1970s. In the wake of the Cuban Missile Crisis, the two superpowers had entered an era of *détente*. At the same time, rapid decolonization fostered competition over the “hearts and minds” of newly independent peoples, competition that could, in the right circumstances, turn into collaboration when both sides wanted to be seen as doing something for the world’s poor, and neither was willing to abandon the promising arena of the SEP to the other. This period also saw a high point in the legitimacy and activity of the UN specialized agencies such as the WHO, a “golden age” of sorts that began with the Russian re-engagement in the late 1950s and came to an end with the US disengagement two decades later under the influence of the rising neoliberal wave. Public health professionals craved a dramatic achievement that would bolster their authority, and they won political backing by proposing smallpox as a uniquely eradicable scourge and the SEP as an inexpensive way for the two superpowers to demonstrate their developmental bona fides.

In the decades since, the SEP has become widely viewed and represented as the paradigmatic success in the history of disease control. No other major infectious disease of humans has been entirely eradicated (though the global eradication of rinderpest, an infectious disease of cattle, was achieved in 2001

63 E.g. Raymond S. Weinstein, “Should remaining stockpiles of smallpox virus (*variola*) be destroyed?” *Emerging Infectious Diseases* 17:4 (April 2011), <http://dx.doi.org/10.3201/eid1704.101865>.

and officially certified in 2011). But the meanings and implications of the SEP's success have remained contested within the global health community and beyond. Was it a model for the eradication of the many other infectious diseases – polio, tuberculosis, malaria, yellow fever, perhaps even AIDS – that still plague humanity? Or was it a singular event, made possible by the unique epidemiological characteristics of smallpox – the existence of a foolproof vaccine, the lack of asymptomatic carriers, the lack of an animal reservoir – or by the specific confluence of international conditions of the 1970s, such as the Cold War-driven competitive collaboration among the superpowers, and a highpoint in the status and efficacy of international organizations?

Moreover, even if the success of the SEP could be repeated with other diseases – and, as these lines are written, the poliomyelitis virus may well be on the verge of global eradication – what of the horizontalist critiques, along the lines of the Alma-Ata Declaration of 1978, that argue that the focus on the eradication of individual pathogens is in any case misguided and should take a back seat to broader efforts to improve the health of the world's poor, most especially the broad-based improvement in the delivery of primary health care? Thomas Jefferson's 1806 prediction has now been fulfilled, even if it took much longer than he seems to have anticipated. But the debates that swirled around the SEP in its time are still very much with us, and they are, to a significant extent, political debates, centered on the appropriate distribution of scarce resources. Even with the *variola* virus gone from the natural world, understanding the history and the politics of smallpox eradication remains as crucial as ever.

### Further reading

- Albert, Michael R., Kristen G. Ostheimer, and Joel G. Breman. "The last smallpox epidemic in Boston and the vaccination controversy, 1901–1903." *New England Journal of Medicine* 344:5 (February 2001), 375–379.
- Anderson, Warwick. *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines*. Durham, NC: Duke University Press, 2006.
- Baldwin, Peter. *Contagion and the State in Europe, 1830–1930*. Cambridge University Press, 1999.
- Birn, Anne-Emanuelle. *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico*. Rochester, NY: University of Rochester Press, 2006.
- Bowers, John Z. "The odyssey of smallpox vaccination." *Bulletin of the History of Medicine* 55:1 (Spring 1981), 17–33.
- Cledenning, Philip H. "Dr. Thomas Dimsdale and smallpox inoculation in Russia." *Journal of the History of Medicine and Allied Sciences* 28:2 (April 1973), 109–125.



- Crosby, Alfred W. *The Columbian Exchange: Biological and Cultural Consequences of 1492*. Westport, CT: Greenwood, 1972.
- Cueto, Marcos. *Missionaries of Science: The Rockefeller Foundation and Latin America*. Bloomington, IN: Indiana University Press, 1994.
- Dixon, Cyril William. *Smallpox*. London: J. & A. Churchill, 1962.
- Eriksen, Anne. "A case of exemplarity: C. F. Rottböll's history of smallpox inoculation in Denmark–Norway, 1766." *Scandinavian Journal of History* 35:4 (December 2010), 351–370.
- Farley, John. *To Cast out Disease: A History of the International Health Division of the Rockefeller Foundation, 1913–1951*. Oxford University Press, 2004.
- Glynn, Ian, and Jenifer Glynn. *The Life and Death of Smallpox*. London: Profile Books, 2004.
- Goodman, Neville M. *International Health Organizations and Their Work*. London: J. & A. Churchill, 1952.
- Greenough, Paul. "Intimidation, coercion and resistance in the final stages of the South Asian smallpox eradication campaign, 1973–1975." *Social Science & Medicine* 41:5 (1995), 633–645.
- Herbert, Eugenia W. "Smallpox inoculation in Africa." *Journal of African History* 16:4 (1975), 539–542.
- Howard-Jones, Norman. *International Public Health Between the Two World Wars: The Organizational Problems*. Geneva: World Health Organization, 1978.
- "Origins of international health work." *British Medical Journal* 1 (May 1950), 1032–1046.
- The Scientific Background of the International Sanitary Conferences, 1851–1938*. Geneva: World Health Organization, 1975.
- Lee, Sung. "WHO and the developing world: the contest for ideology." In Andrew Cunningham and Bridie Andrews, eds., *Western Medicine as Contested Knowledge*. Manchester University Press, 1997, pp. 24–45.
- Litsios, Socrates. "Malaria control, the Cold War, and the postwar reorganization of international assistance." *Medical Anthropology* 17:3 (1997), 255–278.
- "The long and difficult road to Alma-Ata: a personal reflection." *International Journal of Health Services* 32:4 (2002), 709–732.
- Marglin, Frédérique Apffel. "Smallpox in two systems of knowledge." In Frédérique Apffel Marglin and Stephen A. Marglin, eds., *Dominating Knowledge: Development, Culture, and Resistance*. Oxford: Clarendon Press, 1990, pp. 102–144.
- McMillen, Christian W., and Niels Brimnes. "Medical modernization and medical nationalism: resistance to mass tuberculosis vaccination in postcolonial India, 1948–1955." *Comparative Studies in Society & History* 52:1 (January 2010), 180–209.
- McNeill, John R. *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914*. Cambridge University Press, 2010.
- Miller, Genevieve. "Putting Lady Mary in her place: a discussion of historical causation." *Bulletin of the History of Medicine* 55:1 (Spring 1981), 2–16.
- Packard, Randall M. "Visions of postwar health and development and their impact on public health interventions in the developing world." In Frederick Cooper and Randall M. Packard, eds., *International Development and the Social Sciences*. Berkeley, CA: University of California Press, 1997, pp. 93–118.
- Razzell, Peter. *The Conquest of Smallpox: The Impact of Inoculation on Smallpox Mortality in Eighteenth Century Britain*. Firlie: Caliban Books, 1977.



## The politics of smallpox eradication

- Roberts, Shirley. "Lady Mary Wortley Montagu and the Reverend Cotton Mather: their campaigns for smallpox inoculation." *Journal of Medical Biography* 4:3 (August 1996), 129–136.
- Siddiqi, Javed. *World Health and World Politics: The World Health Organization and the UN System*. London: C. Hurst, 1995.
- Tucker, Jonathan. *Scourge: The Once and Future Threat of Smallpox*. New York: Grove Press, 2001.



PART III

★

POLITICS



## The evolution of international law

ANTHONY CLARK AREND

Prior to 1800, diplomats and scholars typically used the phrase “law of nations” to describe what we now call international law. The United States Constitution, for example, empowers Congress with the authority to “define and punish . . . Offences against the Law of Nations.”<sup>1</sup> Whatever term one uses, over the past five hundred years or so, legal rules have developed on the international plane that have woven a normative web in an effort to provide order and stability.

The purpose of this chapter is to explore the development of international law by tracing its origins from the early days of the modern state system to the present. Any discussion of the evolution of international law must, however, begin with an important caveat: the basic framework for the contemporary international legal system is a Western creation. Just as the Western system of sovereign territorial states – for good or ill – ultimately formed the basis for the global international system, so too did the European concept of international law come to define legal rules on the global plane. This observation is by no means meant to deny other traditions of law that have existed in other parts of the globe prior to the creation of the contemporary system.<sup>2</sup> For many centuries Islamic law, in its several forms, served as international law in large parts of the world. But the current system of law among states is best understood as the heir to the Western tradition.

With this caveat in mind, we can now take up the first question in understanding the evolution of international law: what is international law?

1 United States Constitution, art. I, sec. 8.

2 See Adda B. Bozeman, *The Future of Law in a Multicultural World* (Princeton University Press, 1971) for a thoughtful discussion of other approaches to law and their relationship to the contemporary international legal system.

## Definition

As it is used here, the term international law – as well as the older term, law of nations – refers to a set of rules that are binding on international actors. This deceptively short definition, however, requires a little unpacking. First, when we speak of international law, we are referring to concrete rules of behavior – a twelve nautical mile territorial sea limit, the right of states to use armed force in self-defense, the right of diplomats to be immune from criminal prosecution in their host state, the requirement to fulfill treaty obligations, and so forth. Second, rules of international law, unlike other types of rules that may exist at the international level, are *binding*. They have a distinctive normative status. They are not like rules of etiquette or informal norms or rules of morality.<sup>3</sup> The actors to whom the rules are addressed have a *legal* obligation to carry out the rules. Moreover, while international legal rules – much like even some domestic legal rules – may not always be enforced, the creators of these rules perceive that it would be legitimate to enforce these rules through appropriate legal process – unlike, say, rules of etiquette or rules of morality. Finally, international law is binding on *international actors*. This may seem to be an obvious statement, but it is important to clarify this aspect. While *states* are typically seen as the primary actors in the international system, there are a variety of other actors. These include intergovernmental organizations (like the United Nations, the Arab League, the International Monetary Fund, the World Health Organization), supranational organizations (the European Union), non-governmental organizations (like the International Committee of the Red Cross, Amnesty International, Green Peace), multinational corporations (like ExxonMobil, Siemens, IBM), sub- and trans-state ethnic groups (like the Kurds, the Basques, the Inuit), trans-state political groups (like al-Qaeda), and even individual persons (like pirates, war criminals, and others). While not every rule of international law applies to every actor, there are certain rules that do apply to each type of actor noted above.

## Before Westphalia – the law of nature

But what is the source of these rules? Some might argue that true international law was not possible prior to the emergence of the modern state

3 See Anthony Clark Arend, *Legal Rules and International Society* (Oxford University Press, 1999), pp. 16–25, for a discussion of types of rules.

system – typically seen as beginning with the Peace of Westphalia in 1648. And while it may be true that “inter-state” law could not develop before there was a state system, there were claims prior to 1648 that there were certain rules that were binding on international actors. Typically, the source of these rules was seen as natural law or as it is often referred to in older texts, the *law of nature*.

The origin of the law of nature is traditionally found in ancient Stoic philosophy – beginning in ancient Greece and carrying through the classical Roman period. In its basic form, natural law asserts that there are certain fundamental norms of right and wrong behavior that are eternally and universally valid and that could be discovered by reason.

As the Roman Empire came to an end, and Christianity came to be the dominant philosophical framework in the West, natural law thinking persisted. Indeed, very early Christian writers saw a compatibility between natural law and Christianity. For example, the writer of the Epistle to the Romans notes that even though the Gentiles had not been privy to the revelation given to Israel, they were still able to “do by nature what the law requires” because “what the law requires is written on their hearts” (Romans 2: 14–15). Subsequent Christian writers, such as Augustine and Aquinas, further developed this natural law approach. And by the late-medieval period, natural law was being applied to the behavior of international actors. Scholastic writers, including Francisco de Vitoria and Francisco Suárez, applied the insights of natural law thinking to international relations. In *De Indis*, for example, Vitoria sought to address the question of whether the European *conquistadores* were bound by any norms in their interactions with the non-Christian inhabitants of the Americas. While not yet developing an idea of a “law among nations,” Vitoria argued that there were universal natural law principles binding on all persons<sup>4</sup> and thus these implicitly applied to the leaders and representatives of states.

By many accounts, Hugo Grotius was the first thinker to articulate a concept of a law that was binding on *states per se*. While acknowledging that the “law of nature” was the basis for society and thus the ultimate origin of law, Grotius argued that states could also create law through their consent. He explained:

But just as the laws of each state have in view the advantage of that state, so by mutual consent it has become possible that certain laws should originate

4 Arthur Nussbaum, *A Concise History of the Law of Nations*, rev. edn (New York: Macmillan, 1954), pp. 79–84.

as between all states, or a great many states; it is apparent that the laws thus originating had in view the advantage, not of particular states, but the great society of states. And this is what is called the law of nations, whenever we distinguish that term from the law of nature.<sup>5</sup>

Grotius published these words in 1635, in the midst of the Thirty Years' War, and undoubtedly the devastation that the war brought to the heart of Europe influenced Grotius's desire to affirm the existence of a society of states bound by a common law. But this idea of a law of nations created through state consent would become solidified and become the dominant approach to international law following the end of the War and the conclusion of the Peace of Westphalia.

### Westphalia and the rise of positivism

For the emerging European system, the Peace of Westphalia meant the formal recognition of a new system of international relations. In this new system, the territorial state was acknowledged as the primary actor in the international system. The concept of the territorial state was a fundamental change. In theory, there were to be firm geographical borders separating states. States were considered to be sovereign within these boundaries. This meant they were independent, autonomous, and thus juridically equal. In this conception of sovereignty, the borders between states were sharp, with no shading or fuzziness, which other schools of legal thought in other parts of the world allowed. As such, states could be bound by no higher law without their consent.

This recognition of sovereignty as the ordering principle of the international system reflected a fundamental challenge to the way in which "law among nations" could be conceived. While a natural law approach asserted that irrespective of consent, certain principles bound international actors, sovereignty meant that states could only be bound *as a matter of law* through their consent. This concept of consent-based law is captured in the notion of *legal positivism*. While to many scholars and practitioners, natural law principles continued to exist as part of international morality, positive law only existed when created through the consent of states.

One classic illustration of this break between a natural law-based international law and a positivist approach to international law can be found in the

5 Hugo Grotius, "Prolegomena," *De Jure Belli ac Pacis*, reprinted in Robert J. Beck, Anthony Clark Arend, and Robert D. Vander Lugt, *International Rules: Approaches from International Law and International Relations* (Oxford University Press, 1996), p. 43.



celebrated US Supreme Court decision in *The Antelope* (1825). In this case, the Court had to determine if the slave trade was a violation of international law. In the opinion of the Court, Chief Justice John Marshall concluded that the slave trade was indeed immoral, a violation of the “law of nature.” But it was not a violation of the international law because states continued to consent to its practice.<sup>6</sup>

In the early twentieth century, the Permanent Court of International Justice succinctly reaffirmed the positivist approach to international law. In the 1920 case of *The Lotus*, the Court explained that

International law governs relations between independent States. The rules of law binding upon States therefore emanate from their own free will as expressed in conventions or by usages generally accepted as expressing principles of law and established in order to regulate the relations between these co-existing independent communities or with a view to the achievement of common aims. Restrictions upon the independence of States cannot therefore be presumed.

This is the classic statement of positivism. States create law through their consent; absent that consent, their sovereign status allows them to behave as they like on the international plane.

Not surprisingly, one of the hallmarks of the Westphalian system of consent-based international law was the lack of a centralized enforcement system. As scholars would note later, the international system was “anarchic,”<sup>7</sup> there was “no common power”<sup>8</sup> to enforce the law. This did not mean that international law was never enforced, but rather that it was enforced through a system of “self-help.” What this meant was that states took it upon themselves to enforce what they perceived to be violations of international law. One prominent means of exercising self-help is by undertaking a “reprisal.” In essence, a reprisal is an act that if taken in and of itself would be a violation of international law, but when undertaken in response to a *prior* illegal act, would be deemed lawful. If, for example, one state were to illegally abrogate a trade agreement with another state, it would be lawful, as a reprisal, for the victim state to abrogate some other agreement between

6 *The Antelope*, 23 U.S. 120–121 (1825).

7 The idea that the international system can be described as “anarchic” is often associated with the structural realist scholar, Kenneth N. Waltz; see Kenneth N. Waltz, *Theory of International Politics* (New York: Random House, 1979).

8 Drawing upon a phrase from Thomas Hobbes, Professor Robert J. Lieber titled his international relations theory volume, *No Common Power*; see Robert J. Lieber, *No Common Power: Understanding International Relations*, 4th edn (Upper Saddle River, NJ: Prentice Hall, 2001).

the two states. Reprisals could, of course, also involve the use of military force. If a state were to sink the naval vessel of another state, the victim state might choose to retaliate by sinking a similar naval vessel of the first state.

### Modern international law and the growth of custom

With a growing acceptance of a positivist approach to international law, the international community recognized that there were two primary ways in which states could consent to create rules of international law: treaties and custom.

*Treaties* are the most obvious way in which states create law – and indeed the use of treaties dates back millennia. A treaty could be limited to two parties (a bilateral treaty), or could involve many parties (a multilateral treaties). The term “convention” is frequently used to signal a treaty that is multilateral in nature. Some conventions are open to ratification by all states in the international system – such as the Genocide Convention or the Convention on the Rights of the Child – while other conventions are limited to a particular group of states – such as the European Convention on Human Rights or the American Convention on Human Rights.

A second primary way in which states create law by consent is through *custom*. Customary international law comes about not by what states put down in writing but rather by *what they do in practice*. A rule of customary international law starts to develop when a state or a group of states begins to engage in a particular international behavior – often for purely pragmatic, practical reasons. Over time, more and more states begin to engage in that practice until, eventually, nearly all states in the international system are engaging in that practice. At the same time that the practice is becoming widespread, states are also beginning to believe that the practice is obligatory – that it is required by law. Once the practice is nearly universal, and states generally believe the practice is obligatory, it can be considered customary international law. In short, a rule of customary international law is a “usage” that over time “ripens” into a rule of law.<sup>9</sup>

What this process means is that for a rule of customary international law to exist two elements must be present: practice and belief. First, states must engage in a particular activity. Second, they must believe that engaging in

<sup>9</sup> I draw here upon the language found in the famous *Paquete Habana* case, where the Supreme Court determined that fishing vessels were exempt from seizure during time of war under customary international law. *The Paquete Habana*, 175 U.S. 677, 686 (1900).

that activity is obligatory. Or, to use the Latin term, there must be *opinio juris*, there must be a belief that that activity is required by law.

With this essential understanding of the sources of international law, custom became the primary means whereby system-wide international law was created in the Westphalian system. Accordingly, customary rules developed relating to a whole host of international subject areas. For example, customary law developed with respect to “international personality,” that is, the question of when an entity enjoys rights and duties in the international law. In particular, rules developed about statehood and the basic rights of states. Rules were also created about the acquisition of territory – the circumstances under which a state could obtain sovereignty over land – an especially important issue in the seventeenth, eighteenth, and nineteenth centuries during a time of Western colonialism. State practice also gave rise to rules of jurisdiction – the conditions under which a state can exercise its authority over individuals, other legal persons, things, or events. Similarly, rules developed about immunity from jurisdiction. Indeed, modern international legal rules about diplomatic immunity find their precursors in ancient practices of the Egyptians, Hittites, Greeks, and Romans and constitute one of those areas of law that are typically known outside of the legal community. Another area where rules of custom developed relates to state responsibility for treatment of aliens. While there was no human rights law as such prior to the Second World War, there were extensive legal norms about how a state must treat non-citizens in its territory. Another prominent area where rules of custom developed related to the law of the sea. Customary international law came to recognize what might be called the “Grotian notion of the ocean,”<sup>10</sup> the principle that states would be entitled to a narrow band of territorial sea adjacent to their coast in which they would enjoy sovereignty, while the rest of the vast oceans constituted the “high seas” and thus fell under no state’s exclusive sovereign jurisdiction. And, of course, state practice produced extensive legal rules relating to the recourse and conduct of armed conflict.

Many of these rules of customary law had their origins in natural law precepts that existed prior to the emergence of the modern state system. The laws relating to armed conflict, for example, find their origins in ancient religious teachings and the works of classical writers, such as Plato and Cicero, and early Christian writers, like Augustine and Thomas Aquinas.

<sup>10</sup> Hugo Grotius first published *Mare Liberum* in 1609, where he advanced this argument. A recent version can be found at Hugo Grotius, *Mare Liberum: 1609–2009* (Leiden: Martinus Nijhoff, 2009), ed. Robert Feenstra.

But what distinguishes these rules of customary international law from these early nature-law based norms, is that the rules obtained their status of law through the consent of states.

### The rise of the multilateral convention

While customary international law continues to this day to be the bedrock of international law, beginning in the nineteenth century, states increasingly used multilateral treaties as a means to establishing system-wide, or near system-wide, law. Of course, multilateral treaties were not a creation of the 1800s, with such notable earlier treaties as those associated with the Peace of Westphalia – the Treaty of Osnabrück and the Treaty of Münster. Those older treaties, however, were typically used to set up a *modus vivendi* following a particular conflict and were not broad law-creating instruments. The use of multilateral treaties to create rules of international law on a more general basis began in the nineteenth century. Typically, these treaties were produced at major international conferences, and then sent out for ratification by states. One of the earliest such conferences was the 1864 Geneva Conference. Attended by sixteen states, the Conference produced the Geneva Convention for the Amelioration of the Condition of the Wounded in Armies in the Field, which served as the foundation for a long series of Geneva conventions dealing with the law of armed conflict.<sup>11</sup>

This trend to produce major multilateral conventions at international conferences continued as the nineteenth century was coming to a close. At the suggestion of Tsar Nicholas II of Russia, the first International Peace Conference was convened at The Hague in 1899, with twenty-six states in attendance.<sup>12</sup> The Conference was remarkable for several reasons. First, it was one of the first international conferences to address “international problems in the abstract,”<sup>13</sup> rather than the consequences of a specific war. Accordingly, the Conference produced a large number of conventions dealing with international conflict, including the Convention for the Peaceful Adjustment of International Differences, the Convention

11 See, International Committee of the Red Cross, “From the battle of Solferino to the eve of the First World War,” at [www.icrc.org/eng/resources/documents/misc/57jnv.htm](http://www.icrc.org/eng/resources/documents/misc/57jnv.htm).

12 Inis L. Claude, Jr, *Swords into Plowshares: The Problems and Progress of International Organization*, 4th edn (New York: Random House, 1971), pp. 28–34.

13 Ibid. p. 30.

Regarding the Laws and Customs of War on Land, and the Convention on Maritime Warfare.

Second, the 1899 Conference was meant to usher in a broader “Hague Conference System.” The idea was to hold a similar international conference every several years. In 1907, a second Hague Conference took place, and, once again, the delegates adopted a number of conventions that were then sent out for ratification. Unfortunately, the Great War intervened, and what would have been the 1915 Hague Conference did not occur. Third, unlike meetings of the Concert of Europe that had taken place earlier in the century, the Hague Conference System, sought a different level of “universality.”<sup>14</sup> Not only were the Great Powers included, but so too were some smaller states. Moreover, while the twenty-six states that attended the 1899 Conference were mostly European, among the forty-four states that attended the 1907 Conference were a number of non-European states, including some from Latin America.<sup>15</sup>

Even though there was no third Hague Conference, the conference approach to creating major multilateral legal instruments continued throughout the twentieth century and beyond. States, through international conferences, have over the years produced such notable agreements as the four 1949 Geneva Conventions on International Humanitarian Law, the four 1958 Geneva Conventions on the Law of the Sea, the 1961 Vienna Convention on Diplomatic Relations, and the 1982 Convention on the Law of the Sea. While, technically, conventions are only binding on the states that have formally ratified them, many of these multilateral conventions have been so widely ratified and reflected in near-universal practice that they are considered representative of customary international law.

### The rise of global institutions

The twentieth century saw a new development in the international law-making process, the establishment of the global international organization. While public international organizations had existed at least since the early 1800s, these organizations – like the Commission on the Navigation of the Rhine, or the Universal Postal Union – had very limited regional or functional authority. It was not until the League of Nations was created in the aftermath of the First World War, that the international community witnessed the establishment of a general purpose international organization that had the potential for universal membership.

<sup>14</sup> Ibid. p. 29. <sup>15</sup> Ibid. p. 29.

*The League era*

The League of Nations was created by a multilateral agreement, the Treaty of Versailles (1919). While the League of Nations was not in any true sense a centralized legislature, the organization was able to take the lead in convening additional international conferences for the purpose of both codifying existing customary international law and developing new law. For example, under the auspices of the League of Nations, the 1930 Hague Conference on Codification of International Law was convened to explore a wide variety of areas of customary international law with a view toward drafting written agreements to codify that custom.

Moreover, under the League, the first true “World Court” was created, the Permanent Court of International Justice (PCIJ). From the perspective of the development of international law, four aspects of the Court are especially noteworthy.

First, the treaty that officially established the Court, the Statute of the Permanent Court of International Justice, provides what would become the standard articulation of the sources of modern international law. Article 38 of the Statute<sup>16</sup> provides, in part:

## Article 38

The Court shall apply:

1. International conventions, whether general or particular, establishing rules expressly recognized by the contesting States;
2. International custom, as evidence of a general practice accepted as law;
3. The general principles of law recognized by civilized nations.

The first two paragraphs are familiar in the traditional positivist context – treaties and custom. But the third source, “general principles of law recognized by the civilized nations,” is a bit more challenging. The provision was drafted by the 1920 Advisory Committee of Jurists, and there seems to have been no clear view as to what meaning they intended.<sup>17</sup> While this third

<sup>16</sup> League of Nations, *Statute of the Permanent Court of International Justice*, December 16, 1920, available at [www.unhcr.org/refworld/docid/40421d5e4.html](http://www.unhcr.org/refworld/docid/40421d5e4.html), accessed September 6, 2012.

<sup>17</sup> Manley O’Hudson, who served as a Judge of the PCIJ, noted in 1943:

Members of the 1920 Committee of Jurists expressed varying views as to the meaning of this provision when it was drafted, and the confusion was not dissipated by the Committee’s report.

Cited in Marjorie M. Whiteman, *Digest of International Law*, 14 vols. (Washington, D.C.: Government Printing Office, 1963), vol. 1, p. 91.

source has been interpreted by some to indicate the incorporation of non-consensual principles, many scholars claim that “general principles of law” might refer to certain principles of domestic law that are common to states’ legal systems. If, for example, virtually all states had the principle of “double jeopardy” as part of their domestic legal systems, it could be argued that such a principle could be applied in an international dispute among states. Under this interpretation of general principles, consent would still be the basis of the rule. The logic is that since states have accepted these principles in domestic law, it could be assumed that they would consent to the principles being applied in disputes at the international level.

Second, decisions of the Court were binding on the parties to the case. This meant that they had a legal obligation to carry out decisions rendered by the Court.

Third, the Court was empowered to issue advisory opinions at the request of the League of Nations.<sup>18</sup> Advisory opinions were, of course, just that, “advisory,” and not binding upon any state or the League itself.

Fourth, even though decisions of the Court were technically only binding upon the parties,<sup>19</sup> the Court’s articulation of legal principles came to be seen as good evidence of customary international law. In other words, Court decisions tended to be favorably cited as authoritative pronouncements of the law. While the Court only issued decisions in twenty-nine contentious cases and twenty-seven advisory opinions,<sup>20</sup> a number of these decisions continue to be cited as evidence of customary international law.

The League of Nations also introduced an element of centralized enforcement for violations of international law. As noted earlier, a key feature of the Westphalian system was the role of “self-help” in enforcing

18 Article 65 of the Statute of the Court provides:

Questions upon which the advisory opinion of the Court is asked shall be laid before the Court by means of a written request, signed either by the President of the Assembly or the President of the Council of the League of Nations, or by the Secretary-General of the League under instructions from the Assembly or the Council. The request shall contain an exact statement of the question upon which an opinion is required, and shall be accompanied by all documents likely to throw light upon the question.

League of Nations, *Statute of the Permanent Court of International Justice*, December 16, 1920, available at [www.unhcr.org/refworld/docid/40421d5e4.html](http://www.unhcr.org/refworld/docid/40421d5e4.html).

19 Article 59 of the Statute provides “The decision of the Court has no binding force except between the parties and in respect of that particular case.” Ibid.

20 International Court of Justice website, [www.icj-cij.org/pcij/index.php?pi=9](http://www.icj-cij.org/pcij/index.php?pi=9).

international law. But the First World War, with its unprecedented destruction and casualty toll, pointed to the problematic nature of a self-help system and gave rise to the desire to give the new organization enforcement powers. And so, with the creation of the League, the international community saw for the first time a centralized body that could enforce rules of international law.

Under the League Covenant, there were a series of complex restrictions on the recourse to war. In the event that a state were to initiate a war in violation of these restrictions, the League Covenant provided that all other members of the League were to immediately impose economic and diplomatic sanctions on the offending state, and that “[i]t shall be the duty of the Council in such case to recommend to the several Governments concerned what effective military, naval or air force the Members of the League shall severally contribute to the armed forces to be used to protect the covenants of the League.”<sup>21</sup> While the decision of the League Council was only a *recommendation*, this was nonetheless a significant development in the enforcement of international law. And even though these mechanisms proved unable to counter the Italian invasion of Ethiopia (1936), the Japanese invasion of Manchuria (1931), and the multiple German invasions of neighboring lands

21 Article 16 of the League Covenant provides in full:

Should any Member of the League resort to war in disregard of its covenants under Articles 12, 13 or 15, it shall ipso facto be deemed to have committed an act of war against all other Members of the League, which hereby undertake immediately to subject it to the severance of all trade or financial relations, the prohibition of all intercourse between their nationals and the nationals of the covenant-breaking State, and the prevention of all financial, commercial or personal intercourse between the nationals of the covenant-breaking State and the nationals of any other State, whether a Member of the League or not.

It shall be the duty of the Council in such case to recommend to the several Governments concerned what effective military, naval or air force the Members of the League shall severally contribute to the armed forces to be used to protect the covenants of the League.

The Members of the League agree, further, that they will mutually support one another in the financial and economic measures which are taken under this Article, in order to minimise the loss and inconvenience resulting from the above measures, and that they will mutually support one another in resisting any special measures aimed at one of their number by the covenant-breaking State, and that they will take the necessary steps to afford passage through their territory to the forces of any of the Members of the League which are co-operating to protect the covenants of the League.

Any Member of the League which has violated any covenant of the League may be declared to be no longer a Member of the League by a vote of the Council concurred in by the Representatives of all the other Members of the League represented thereon.



(1934–), the League arrangement for enforcement served as a prototype for the United Nations system.

### *The United Nations era*

While the League of Nations was unsuccessful in preventing the Second World War, there was a general consensus on the part of the Allied states that a new, better global organization would be needed to replace the League when the war was over. Indeed, it seems likely that the ability of such disparate states as the United States, the Soviet Union, the United Kingdom, and China to collaborate effectively during the war reinforced the notion that such collaboration would be possible during peacetime in a new organization.

Following a series of conferences during the war, the United Nations officially came into being on October 24, 1945. Among the many goals for the new organization articulated in the Charter was “encouraging the progressive development of international law and its codification.”<sup>22</sup> Viewing the organization as a whole, there have been several ways in which the United Nations itself has promoted the evolution of international law. At a basic level, this can be seen in three of the major organs of the United Nations: the International Court of Justice (ICJ), the General Assembly, and the Security Council.

As the successor to the Permanent Court of International Justice, the International Court of Justice has continued to issue decisions that have served as evidence of customary international law. Since 1947, the ICJ has dealt with 135 contentious cases and issued 26 advisory opinions as of early 2015. ICJ decisions have helped develop a jurisprudence that has advanced customary international law.

The United Nations General Assembly has also played a critical role in developing international law. While with the exception of a few minor areas, resolutions adopted by the General Assembly are non-binding recommendations, it is not unusual for those resolutions to affect the development of binding law in several ways. First, many resolutions serve as a basis for a treaty. For example, in 1948, the General Assembly adopted the Universal Declaration of Human Rights. While simply a non-binding resolution, the Declaration served as both the basis and the impetus for two agreements, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, which were produced in

22 United Nations Charter, art. 13.

1966 and submitted to states for ratification. Second, some General Assembly resolutions may actually codify pre-existing customary international law. In other words, the resolution may simply put down in written form what states have accepted as a matter of custom. As such, the resolution could be cited as a short-hand for a rule of custom. Third, if the General Assembly adopts a resolution that purports to make a claim about a legal rule, that resolution can be cited as evidence of state practice. Here, as with any specific item of evidence used to indicate the existence of a rule of customary law, the resolution would not be dispositive, but would rather be one data point demonstrating possible state practice.

Another role that the General Assembly played in the creation of international law was the establishment of the International Law Commission (ILC) in 1947. Consisting of thirty-four experts in international law elected by the General Assembly, the International Law Commission has as its purpose “the promotion of the progressive development of international law and its codification.”<sup>23</sup> Since its creation, the ILC has carried out this goal in a variety of ways, including by serving as the principal author of draft conventions that provide the starting framework for an international conference. So, for example, the International Law Commission prepared drafts of four oceans law treaties that were discussed and approved at the First United Nations Conference on the Law of the Sea (UNCLOS I) in 1958. The ILC also developed drafts for the 1961 Vienna Convention on Diplomatic Relations, the 1963 Vienna Convention on Consular Relations, and the 1969 Vienna Convention on the Law of Treaties.

The Security Council, of course, has also performed a critical role in the UN era. Unlike the Council to the League, the Security Council is empowered by the Charter to adopt binding resolutions within its area of competency. What this has meant in practice is that the Council has been able to adopt measures aimed at the enforcement of international law relating to international peace and security. Under Article 39 of the Charter, the Council is empowered to determine if a state has committed a threat to the peace, a breach of the peace, or an act of aggression.<sup>24</sup> If the Council so determines, it

23 Statute of the International Law Commission, art. 1, [http://untreaty.un.org/ilc/texts/instruments/english/statute/statute\\_e.pdf](http://untreaty.un.org/ilc/texts/instruments/english/statute/statute_e.pdf).

24 Article 39 provides:

The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.

is further empowered to order states to impose economic and diplomatic sanctions on the offending state.<sup>25</sup> And if those sanctions prove ineffective, or if the Council determines at the outset that such sanctions would prove ineffective, the Council may authorize the use of military force against the recalcitrant state.<sup>26</sup> During the Cold War period, the veto power of the five Permanent Members (China, France, Great Britain, the Soviet Union, and the United States) typically prevented the Council from undertaking military measures to enforce the law. Indeed, the only exception came when the Council authorized force in response to the invasion of South Korea by North Korea in June of 1950. And that action was possible only because the Soviet Union could not exercise its veto because it was boycotting the meetings of the Security Council over of the presence of Taiwan in the “China” seat on the Council. But even during the Cold War, the Council proved able to impose economic and diplomatic sanctions in a variety of settings. And with the end of the Cold War, the Council authorized the use of military force in several important cases.

Examples of economic and diplomatic sanctions include: (1) Actions against Rhodesia (1966 and following) and South Africa (1977 and following) to respond to overtly racist states, something about which the entire Security Council could agree; (2) Actions against Iraq following the invasion of Kuwait (1990 and following); (3) Actions against Libya for failing to extradite those sought for the Pan Am Flight 103 bombing (1992 and following); and (4) Sanctions against Iran relating to its nuclear program (2006 and following). Examples of authorizations to use military force include: (1) Actions against Iraq for the invasion of Kuwait (1990 and following); (2) Actions in the Balkans against Serbia (1992 and following); (3) Actions following the coup in Haiti (1994); (4) Actions in Somalia (1992 and following); and (5) Actions against Libya following the Arab Spring (2011). This spurt of Security Council activity to enforce international law since 1990 reflects an important change in the distribution of power in the international system. In those early days, the Soviet Union (and then Russia) had lost its influence over Eastern Europe and beyond and was seeking to maintain power through co-operation in multi-lateral bodies, such as the United Nations.

Turning to specialized and functional international organizations, during the UN era, international law also developed through the operation of a

UN Charter, art. 39 (1945). Interestingly enough, these terms are not defined in the Charter, leaving it up to the Council to use its discretion to determine what constitutes a “threat to the peace,” “breach of the peace,” or an “act of aggression.”

25 Ibid. art. 40. 26 Ibid. art. 42.

growing number of specialized international organizations. Following in the tradition of the Public International Unions of the 1800s, and the International Labor Organization (ILO), which was established in 1919, states created organizations to address a host of issues that needed some level of international co-operation. These organizations include such varied institutions as the World Bank, the International Monetary Fund (IMF), the World Trade Organization (WTO), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the World Health Organization (WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Food and Agriculture Organization (FAO), the World Intellectual Property Organization (WIPO), the International Atomic Energy Agency (IAEA), and the World Meteorological Organization (WMO). While these organizations have differing connections to the United Nations, each of them is formally established pursuant to its own treaty and has its own governing document.

Some of these organizations have important law-creating powers. The WTO, for instance, creates rules of international law that are binding upon its members, as does the International Seabed Authority. Others have the authority to take measures to enforce rules that have been established through international agreements relating to the specialized field. The Organisation for the Prohibition of Chemical Weapons, for example, is empowered to take certain measures to enforce the Chemical Weapons Convention.

While the previous discussion has dealt with the development of “global international law,” it is important to note one very special case relating to what might be called “regional international law,” the European Union. The EU has its origins in treaties concluded in the 1950s to establish the European Coal and Steel Community and the European Atomic Energy Community. That evolved into the European Union by 1993. What is most significant about the EU from the perspective of international law is that some of its organs have the authority to promulgate legal rules that are not only binding upon its member states but are actually directly binding upon persons and firms within the member states. For this reason, some have described the EU as a “supranational,”<sup>27</sup> rather than an “international” organization. To date, the EU is unique among international organizations

27 As Harold Jacobson notes, “Supranational organizations have the authority to take actions that have direct application to individuals and such legal entities as corporations.” Harold Jacobson, *Networks of Interdependence: International Organizations and the Global Political System* (New York: Knopf, 1979), p. 49.

in its ability to create legal rules in this fashion. Since the creation of these special European institutions, scholars and public officials have often speculated that states in other regions would seek to establish similar institutional arrangements. But perhaps due to the particular historical and political development of Europe, states in other regions have not replicated the EU's legal role.

### The rise of the individual and the development of international human rights law

One of the most significant substantive developments in international law during the UN era has been the creation of law relating to the rights of the individual. As noted above, prior to the Second World War there were virtually no international legal rules that regulated how a state treated its own nationals. But with the revelations of the mass atrocities that occurred during the War – including the Holocaust – the founders of the United Nations resolved to make the promotion of human rights a major goal of the new global organization. To this end, the Preamble to the UN Charter provided that the “people of the United Nations” were determined “to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women.”<sup>28</sup> Accordingly, one of the first tasks of the fledgling organization was to develop a document relating to the rights of individuals. This document, as mentioned earlier, became the Universal Declaration of Human Rights, which was adopted as a General Assembly resolution in 1948. The Universal Declaration set the stage for the development of a series of treaties relating to human rights. In addition to the two 1966 Covenants (Civil and Political Rights; Economic, Social and Cultural Rights), human rights related treaties that were developed include: the Genocide Convention (1948), the Torture Convention (1984), the Convention on the Elimination of All Forms of Discrimination against Women (1979), the Convention on the Rights of the Child (1989), the Convention on the Rights of Persons with Disabilities (2006), the Convention for the Suppression of the Traffic in Persons (1949), and the Convention Relating to the Status of Refugees (1951). Beyond these global agreements, regional organizations produced a variety of human rights agreements for their regions. These include the European Convention on Human Rights (1950), the American Convention on Human Rights (1969), the African

<sup>28</sup> UN Charter, Preamble.

Charter on Human and Peoples' Rights (1981), and the Arab Charter on Human Rights (2004).

But even while the international community was producing these conventions on human rights, the substance of human rights was hotly contested. During the Cold War, the United States and its allies regarded civil and political rights – such as freedom of the press, freedom of speech, the right to participate in governance – as “real” human rights, and tended to consider economic, social, and cultural rights – such as the right to employment, the right to health care, the right to an education – as aspirations and not truly rights. Conversely, the Soviet Union and its allies prioritized economic, social, and cultural rights over political and civil rights. Consequently, there was minimal progress during the Cold War in establishing effective, universal implementation of these agreements.

But as the Cold War was coming to an end in the late 1980s and early 1990s, there were some efforts at institutionalizing implementation of human rights rules. In particular, states began working co-operatively to devise new methods to hold individuals accountable for human rights violations. Following upon the precedents set at the Nuremberg Military Tribunal after the Second World War to punish persons responsible for violating the laws of war or committing crimes against humanity, the post-Cold War era witnessed the establishment of a series of special tribunals to hold persons accountable. The first of these were two tribunals established by the Security Council – the International Criminal Tribunal for Former Yugoslavia and the International Criminal Tribunal for Rwanda – to try persons alleged to have committed violations of international humanitarian law during those conflicts.

As these tribunals were being established, the United Nations was continuing work to establish a permanent criminal tribunal with worldwide jurisdiction. Following preparatory efforts done by the International Law Commission and special committees created by the General Assembly, the United Nations Diplomatic Conference on the Establishment of an International Criminal Court took place in Rome in July of 1998.<sup>29</sup> This Conference produced the Rome Statute of the International Criminal Court, which entered into force in July 2002. As of early 2015, twenty-one cases have been brought to the Court.<sup>30</sup>

29 See Christopher C. Joyner, *International Law in the 21st Century: Rules for Global Governance* (Lanham, MD: Rowman & Littlefield, 2005), p. 156.

30 [www.icc-cpi.int/en\\_menus/icc/situations%20and%20cases/Pages/situations%20and%20cases.aspx](http://www.icc-cpi.int/en_menus/icc/situations%20and%20cases/Pages/situations%20and%20cases.aspx).

The cases include those relating to situations in the Democratic Republic of the Congo, the Central African Republic, Uganda, the Sudan (Darfur), Kenya, Libya, and Côte d'Ivoire.

While such a standing court is an important advance for the enforcement of international human rights law, the ICC has only had modest success. The United States is not a party to the Court's statute, neither are other major actors in the international system, such as Russia, China, Israel, Egypt, and Saudi Arabia. In addition, the Court has been criticized for focusing on Africa and not other parts of the world.

### The twenty-first century and beyond – a neomedieval world?

While the twenty-first century is still young, changes in the nature and authority of the actors in the international system have given rise to a development that could challenge the fundamental assumptions underlying the Westphalian system of international law. As noted above, this system is based on the assumption that states are the primary actors in the international system and that states—through their consent—create international legal rules. But what if there were to be a proliferation of a variety of non-state actors *and* the complex interactions among these dissimilar actors were to give rise to legal rules?

In his 1977 work, *The Anarchical Society*, Hedley Bull spends some time speculating on the future of the international system. While Bull ultimately concludes that the state system will persist, he describes one possible model for the international system as a “neomedieval” system. In the classical medieval European system, Bull notes “no ruler or state was sovereign in the sense of being supreme over a given territory and a given segment of the Christian population; each had to share authority with vassals beneath and with the Pope and (in Germany and Italy) the Holy Roman Emperor above.”<sup>31</sup> While Bull would not foresee a return to this historical system, he explains that “it is not fanciful to imagine that there might develop a modern and secular counterpart of it that embodies its central characteristic: a system of overlapping authority and multiple loyalty.”<sup>32</sup> Two more recent commentators, Bruce Cronin and Joseph Lepgold, capture the essence of a neo-medieval system by explaining that such a system would

<sup>31</sup> Hedley Bull, *The Anarchical Society: A Study of Order in World Politics* (New York: Columbia University Press, 1977), p. 254.

<sup>32</sup> *Ibid.*

be “defined by actors of increased *diversity* and *heterogeneity* and characterized by overlapping international authorities and conflicting loyalties.”<sup>33</sup> In other words, in a neo-medieval system, there might be territorial states, but there would also be a variety of other non-state actors that would be able to exercise authority over individuals. Similarly, in such a system, individuals would feel loyalties to a variety of actors, not just the state. As Bull notes, “[i]f modern states were to come to share their authority over their citizens, and their ability to command their loyalties, on the one hand, with regional and world authorities, and on the other hand with sub-state or sub-national authorities, to such an extent that the concept of sovereignty ceased to be applicable, then a neo-medieval form of universal political order might be said to have emerged.”<sup>34</sup>

Over the past few decades, there has indeed been a rather dramatic increase in the number, diversity, and political influence of non-state actors. These include substate actors (such as ethnic communities, like the Kurds or the Basques or the Igbo), suprastate actors (the European Union is thus far the only existing example of such), transnational organizations (such as religious organizations, like the Roman Catholic Church, the Bahá’i International Community or the Organisation of Islamic Cooperation), inter-governmental organizations, trans-state associations (such as the Alps-Adriatic Working Community<sup>35</sup>), transnational or multinational corporations, and trans-state political groups (such as al-Qaeda, Hezbollah and ETA [Euskadi Ta Askatasuna]). These dissimilar actors have in some cases gained certain authority over individuals and have even earned the loyalty of individuals.

While the existence of these actors is not new, their increasing authority may mean that the creation of international legal rules will no longer be the sole domain of states. Even now, intergovernmental organizations can enter into international agreements. And a variety of other non-state actors, like peoples, have similarly entered into treaties. With the

33 Bruce Cronin and Joseph Leggold, “A new medievalism: conflicting international authorities and competing loyalties in the twenty-first century,” unpublished paper presented at the conference on “The Changing Nature of Sovereignty in the New World Order,” Center for International Affairs, Harvard University, April 1995, cited in Anthony Clark Arend, *Legal Rules and International Society* (Oxford University Press, 1999), p. 171.

34 Bull, *The Anarchical Society*, pp. 254–255.

35 The Alps-Adriatic Working Community is an association founded in 1978 whose members are regions, cities, and indeed some states in this region that have organized to promote common goals. See <http://www.alpeadria.org/english/index.php?page=home%26f=1%26i=home>.



proliferation of actors in the international system, it is possible that at some point in the future the complex interactions of these actors will actually give rise to norms of behavior that will come to constitute customary law. This has not yet occurred, but it may as the twenty-first century progresses, and it would represent a fundamental challenge to the international legislative process.

### Further reading

- Anghie, Antony. *Imperialism, Sovereignty and the Making of International Law*. Cambridge University Press, 2005.
- Arend, Anthony Clark. *Legal Rules and International Society*. Oxford University Press, 1999.
- Bederman, David J. *Globalization and International Law*. New York: Palgrave, 2008.
- International Law in Antiquity*. Cambridge University Press, 2001.
- Bozeman, Adda B. *The Future of Law in a Multicultural World*. Princeton University Press, 1971.
- Brierly, J. L. *The Law of Nations: An Introduction to the International Law of Peace*, 6th edn. Oxford University Press, 1963.
- Buchanan, Allen E. *Justice, Legitimacy, and Self-Determination: Moral Foundations for International Law*. Oxford University Press, 2004.
- Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*. New York: Columbia University Press, 1977.
- Cassese, Antonio. *International Law in a Divided World*. Oxford: Clarendon Press, 1986.
- Franck, Thomas M. *The Power of Legitimacy among Nations*. Oxford University Press, 1990.
- Goldsmith, Jack L., and Eric A. Posner. *The Limits of International Law*. Oxford University Press, 2006.
- Higgins, Rosalyn. *The Development of International Law Through the Political Organs of the United Nations*. Oxford University Press, 1963.
- Janis, Mark W. *America and the Law of Nations 1776–1939*. Oxford University Press, 2010.
- Joyner, Christopher C. *International Law in the 21st Century: Rules for Global Governance*. Lanham, MD: Rowman & Littlefield, 2005.
- Khadduri, Majid. *The Islamic Conception of Justice*. Baltimore, MD: Johns Hopkins University Press, 1984.
- Koskenniemi, Martti. *The Gentle Civilizer of Nations: The Rise and Fall of International Law, 1870–1960*. Cambridge University Press, 2001.
- Nussbaum, Arthur. *A Concise History of the Law of Nations*, rev. edn. New York: Macmillan, 1954.
- O’Connell, Mary Ellen. *The Power and Purpose of International Law*. Oxford University Press, 2008.
- Russell, Ruth B., assisted by Jeannette Muther. *A History of the United Nations Charter: The Role of the United States, 1940–1945*. Washington, DC: Brookings, 1958.
- Tunkin, G. I. *Theory of International Law*. Cambridge, MA: Harvard University Press, 1974.
- Walters, F. P. *A History of the League of Nations*, 2 vols. Oxford University Press, 1952.

## On nationalism

AVIEL ROSHWALD

Modern nationalism lies at the intersection of the universal and the particular. It thus embodies some of the key paradoxes that have shaped world history over recent centuries. By the end of the twentieth century (with the final collapse of Soviet internationalism), the idea of the nation state as the standard framework for the legitimate exercise of political–territorial sovereignty had gained nearly planet-wide acceptance (with the possible exception of Antarctica). It had achieved structural hegemony on the strength of its challenge to older, discredited imperial systems. Yet the very rapidity and extent of its diffusion had been facilitated in large measure by the very dynamics of imperial expansion and domination. Indeed, at least in its formal institutional manifestations, it reflected the continued influence of distinctively Euro-Atlantic ideas about the relationship among authority, consent, and identity. Whether the universal application of those ideas could in practice be conducive to the expression of diverse identities and to the creation of a stable and egalitarian world order remained an open question.

For the purposes of this chapter, the nation can be defined as a population larger than one of personal acquaintance, to which shared, heritable identity is ascribed, and in whose name political authority over a bounded territory is claimed.<sup>1</sup> Nationalism, then, describes the aspiration or active effort to achieve, maintain, or expand the scope of, a nation's shared identity, self-governance, and/or power. By the same token, a distinguishing characteristic of nationhood is that its sense of shared belonging is manifested, expressed, and developed through cultural traditions and patterns of association and commemoration that can exist apart from the state, and are indeed likely to survive open-ended periods of statelessness. Thus, an ever-evolving sense of Polish nationhood was cultivated at least among certain social classes for

<sup>1</sup> This definition borrows and adapts in part from Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, 2nd edn (London: Verso, 1991), p. 6.

generations between the partition of the Polish Commonwealth in the late eighteenth century and the creation of an independent Polish republic in 1918. Conversely, Delaware's identity would be unlikely to survive a remapping of the United States that did away with the federal constitutional order.

In and of itself there is nothing exclusively modern about the formation of broadly inclusive, transgenerational communities of identity, nor about the association of a population's communal identity with claims of territorial sovereignty. There is good reason to hypothesize that the powerful link observable worldwide and in all periods of recorded history between humans' personal sense of self and their sentiment of group belonging is the manifestation of a genetically rooted and culturally reinforced trait. In their original form, one may conjecture, such psychologically internalized bonds of solidarity tended to be based on kinship ties. Indeed, extensive kin-based networks of mutual obligation remain vital elements of social structure in many parts of the world to this day. By the same token, all available evidence suggests that one of the distinguishing characteristics of humans as a species is their propensity for reinforcing kinship relations by attaching symbolic significance to shared cultural norms that are seen as expressive of group identity. Such norms are cultivated both as means of securing internal cohesion and as signifiers of difference between groups. Idiosyncrasies of language, religion, and dress are among the most obvious examples of such norms, but the plasticity of human culture allows for any number of other markers to play this role.

The very use of commonly cultivated and cherished cultural traits to reinforce kinship bonds creates, in turn, a bottomless tool chest of mechanisms for the incorporation of non-kin into the kinship-based group – and, indeed, for the creation of communities of social solidarity far more extensive than kinship groups. The range of possibilities is open-ended, and includes such diverse (and often overlapping) categories as communities of religion, caste, class, and ethnicity. Ethnic groups are distinguished by their association with a myth of shared ancestry and heritage, of which common cultural traits are deemed both emblematic and preservative. Ethnic identity is one of the most common socio-cultural foundations of nationalism, even as nationalism, in turn, contributes to the shaping of ethnic and other identities.

Across multiple continents and throughout much of recorded history, ethnicity has functioned as a widely prevalent, seemingly (albeit misleadingly so) irreducible rubric for the reconciliation and alignment of potentially divergent socio-political and material interests and for the

mobilization of quasi-instinctive loyalties. It is by virtue of these perceived qualities that ethnicity has been a key object of political control, instrumentalization, and manipulation practically anywhere and any time states have existed. The wholesale transportation into exile of recalcitrant ethnic elites was a key feature of imperial political–demographic engineering in the Assyrian and neo-Babylonian empires of the early to mid-first millennium BCE; historians of Southeast Asia have highlighted the politicization of ethnicity in a number of the region’s centralizing kingdoms (the predecessors, so to speak, of modern-day Burma, Thailand, and Vietnam) from the fifteenth century CE onwards;<sup>2</sup> the mass defection of subordinate and exploited ethnic groups from their Aztec overlords played a critical role in facilitating Hernán Cortés’s rapid sixteenth-century conquest of Moctezuma II’s kingdom; ethnic distinctions among Manchus, Mongols, and Han Chinese were institutionalized and instrumentalized from the seventeenth century onwards in the Qing dynasty’s system of ethnically stratified military formations and garrisons (the Banner System).<sup>3</sup>

One can go further and point to numerous pre-modern examples of claims about ethno-cultural identity playing critical roles in the legitimization of state authority, or serving as major motives for (or at least arguments in favor of) political–territorial autonomy, independence, or regime change.<sup>4</sup> In such cases, it is possible to speak of pre-modern expressions or invocations of national identity, or even of pre-modern forms of nationalism. Examples include the public self-definition of the Athenian state in the age of Pericles (fifth century BCE), the Jewish revolts against Rome in the first and second centuries CE, the invocation of Han identity by leaders of the rising against the Mongol Yuan dynasty in fourteenth-century China, and the appeal to Scottish heritage and identity in the 1320 Declaration of Arbroath.

### Characteristics and origins of modern nationalism

What is distinctive about modern nationalism (from roughly the seventeenth and eighteenth centuries onwards) is (a) its eventual global diffusion as the default conceptual framework for independent statehood and matrix for

2 Victor Lieberman, *Strange Parallels: Southeast Asia in Global Context, c. 800–1830*, Vol. 2: *Mainland Mirrors: Europe, Japan, China, South Asia and the Islands* (Cambridge University Press, 2009).

3 Mark Elliott, *The Manchu Way: The Eight Banners and Ethnic Identity in Late Imperial China* (Stanford University Press, 2001).

4 Anthony D. Smith, *The Antiquity of Nations* (New York: Polity Press, 2004).

inter-societal relations and (b) its close association with the concept of popular sovereignty. Indeed, I would argue that it is the spread of the idea of popular sovereignty (and a concomitant trend towards the secularization of the political sphere) that underlies the global standardization of nationhood as the foundation of legitimate political–territorial authority. To the extent that a state’s political sovereignty is thought of as flowing from one unitary source (the normative absolutist and post-absolutist concept in a number of the West European countries whose overseas empires had a disproportionately important role in shaping political cultures around the world), that quality of irreducibility can readily be embodied in the person of the monarch who rules on the basis of divine right. But wherever subjects became citizens, sovereignty shifted from the person of the monarch to the collectivity of the populace (whether in rhetorically explicit terms, as in the various French republics, or *de facto*, as in the gradual democratization of the British constitutional monarchy). Yet, while the King had one body (or at most two, in the figurative sense highlighted by Ernst Kantorowicz<sup>5</sup>), the popular sovereign could literally consist of several tens of millions. What would undergird the unity of the state if its sovereign was no longer one person but many and if the principle of divine-right rule no longer held? The answer was that the principle of popular sovereignty both presupposed and required that the populace share some common form of identity whose notional unity transcended its many parts. That said, struggles to assert popular sovereignty and national identity could serve either to reinforce existing political boundaries, or to subvert and challenge them. Outcomes were related in part to the contingencies of pre-existing patterns of ethno-cultural, linguistic, religious, and/or regional bonds and allegiances, and the degree to which they happened to be congruent or not with existing political–territorial configurations. Regardless of the diverse circumstances that shaped each individual scenario, the interconnections among the ideas and practices of political modernization, popular sovereignty, self-determination, and nationalism necessarily ran deep.

Understanding the global spread of modern nationalism therefore requires that we examine the diffusion of popular sovereignty as an ideal on which it was parasitical – an ideal, moreover, that shaped political cultures, institutions, and practices across a very wide spectrum of regime types (from constitutional monarchies to liberal-democratic republics to plebiscitary

5 Ernst H. Kantorowicz, *The King’s Two Bodies: A Study in Mediaeval Political Theology* (Princeton University Press, 1957).

dictatorships, to repressively authoritarian regimes that murdered millions of people in the very name of the people).

It is striking that among the earliest, classic exemplars of the modern nation state were precisely some of the West European countries most heavily committed to, and dependent on, the cultivation of overseas commercial and colonial empires. In other words, the modern nation state was born amidst ever more entangled and entangling global networks of exploitation, migration, cultural transfer, and economic exchange. The Netherlands and England/Britain are the two most compelling illustrations of this correlation, with France perhaps a slightly less convincing example. One is tempted to speculate that the experience of collective self-governance among globally entrepreneurial joint-stock companies and chartered overseas trading enterprises had a spill-over effect on domestic political culture. By the same token, mercantile elites and the financial interests associated with them had a strong motivation to look to the state for military, diplomatic, and legal support as they invested their resources and pursued their livelihoods in risk-laden foreign ventures. All this transpired against the backdrop of a violently competitive European state system that, as Charles Tilly among others has described, drove governments to cultivate ever-deeper and more extensive sources of revenue to sustain their ever-larger standing armies (or massive navy in Britain's case) and military capabilities.<sup>6</sup> The result was a steadily deepening interpenetration of state and society, with the commercially and colonially enterprising (and mutually competitive) countries of Europe's Atlantic seaboard at the cutting edge of the trend.

Confronted with increasingly demanding exaction of taxes and customs duties by ever more-intrusive governments, members of the most economically enterprising, literate, and politically engaged sectors of these societies – such as portions of the land-owning gentry, the commercial and professional middle classes, and even the nobility – expected a greater say in the affairs of state in return. The seventeenth, eighteenth, and early nineteenth centuries were marked by a series of consequent revolutionary upheavals and ideological paradigm shifts. Such watershed moments (e.g. the English Civil War and Glorious Revolution of the 1640s and 1688, respectively, the American and French revolutions of the late eighteenth century, the independence of the Latin American countries in the

6 Charles Tilly, *Coercion, Capital, and European States, AD 990–1990* (Cambridge, MA: Basil Blackwell, 1990).

early nineteenth-century wake of the Napoleonic Wars) marked the relentless rise – however punctuated by reactionary reversals – of those principles of popular sovereignty, political representation, and constitutional government with which the ideas of nationalism and national self-determination proved inextricably intertwined.

Where these crises played out within the bounds of geographically contiguous territories whose land-owning and urban social elites had long since been assimilated into a common language and/or a shared historical consciousness, the eventual outcome tended to be an institutionally, rhetorically, symbolically, and educationally consolidated and reinforced form of self-aware national identity that cut across much of the upper and middle classes, and that at least notionally encompassed some among the less privileged social echelons. The answer to the question that formed the title of the Abbé Sieyès's famed revolutionary pamphlet of 1789, "What is the Third Estate?," said it all: "The Third Estate is a complete nation."<sup>7</sup> The democratic ideal and the national ideal functioned as two sides of the same coin. Even when and where West European monarchies were preserved or restored, it was generally in constitutional rather than divine-right form, and the monarch himself or herself was, so to speak, nationalized – portrayed as an embodiment of the nation's distinctive virtues or even the first among its citizens.

In cases where settler populations were separated from metropolises by wide oceans and distinctive administrative arrangements, the movement towards representative government and popular sovereignty almost necessarily led to political separatism and the accompanying crystallization of separate national identities. I say "almost necessarily" because this was certainly not how the matter initially appeared to many eighteenth- and early nineteenth-century North and South American advocates of political reform. On the contrary, a typical initial colonial response to imperial centralizing efforts was often to demand a greater say in all-imperial affairs along with the preservation or enhancement of local autonomy. During the 1750s, Benjamin Franklin spent time and effort on both sides of the Atlantic trying to win support for his vision of a transatlantic Anglo-American empire of equals.<sup>8</sup> Representatives of the Spanish Empire's Central and South American provinces participated in the liberal-dominated legislative

7 Emmanuel Joseph Sieyès, "Qu'est-ce que le Tiers état?" (1789; Paris: Éditions du Boucher, 2002), p. 2. My translation.

8 Gordon Wood, *The Americanization of Benjamin Franklin* (New York: Penguin, 2005), chapter 2.

assembly (Cortes) convened under British naval protection at Cádiz in southwestern Spain during the Napoleonic occupation of the rest of the country. They hoped to have an equal voice in the forging of a new constitutional order that would enshrine the principle of popular sovereignty for the Spanish Empire as a whole. It was only when the Peninsular majority in the Cortes rebuffed proposals for a federal system of government and demographically proportional electoral weight for the colonies that colonial elites turned to the alternative path of political separation and national independence – a process accelerated by the efforts of the restored, post-Napoleonic Spanish monarchy to reconsolidate central authority by dint of military force. It was effectively *in the wake of independence* and the notional achievement of popular sovereignty that each of the new Hispano-American states faced the enormous challenge of actually fashioning a distinctive sense of national identity that would cut across deep internal social, cultural, and ethnic divisions and lend the new polities political cohesion and international legitimacy.<sup>9</sup> This situation was hardly unique. As David A. Bell has pointed out, it is one of the characteristic paradoxes of nationalism that its political leaders must often scramble to define – and, if need be, coercively consolidate – the identity of the very collectivity on whose behalf they claim to be acting.<sup>10</sup>

### Global convergence and diffusion

The nineteenth and twentieth centuries witnessed the continued global spread and development of the twinned ideas of popular sovereignty and nationalism. An essential element fueling this dynamic was the evident power of the modern nation state. Governments of nation states such as Britain, revolutionary France, and the nascent United States appeared able to tap into the potential of their human and material resources much more fully than older dynastic regimes that ruled over royal subjects rather than in the name of national citizens. (To be sure, Britons nominally remain subjects of the Crown to this day, but the power of what John Brewer dubbed the British “fiscal-military” state was directly and obviously linked to the vitality of its parliamentary institutions – incrementally reformed

9 Jeremy Adelman, “Iberian passages: continuity and change in the South Atlantic,” in David Armitage and Sanjay Subrahmanyam, eds., *The Age of Revolutions in Global Context, c. 1760–1840* (Houndsmills: Palgrave Macmillan, 2010), pp. 59–82.

10 David A. Bell, *The Cult of the Nation in France: Inventing Nationalism, 1680–1800* (Cambridge, MA: Harvard University Press, 2001), p. 200.



along democratizing lines in the course of the nineteenth and twentieth centuries – and the vigor of its national sentiment.<sup>11</sup>) Administrative centralization, high levels of taxation (and consequent ability to borrow at lower rates on the financial markets), and the consequent ability to field large armies or navies – all these essential elements of Great Power status seemed much more readily achievable for states that claimed to embody the identity (rather than merely protect the interests) of the populace on whom such exactions were imposed. The more a state's power rested on popular consent, the freer it was to coerce.

The nation state was thus a very attractive model in what remained a volatile and fiercely competitive global political environment. The fact that modern nationalism had first become such a powerful force in the countries that were among the most deeply engaged with global commerce and colonial expansion also led to the association of the nation state with economic prosperity, industrial enterprise, and political-military power. That said, to the extent that other societies and states hoped to catch up with the prosperity of a country like Britain, nationalism could go hand in hand with economic protectionism (even as nineteenth-century Britain embraced the doctrine of free trade). Indeed, nationalism spread not simply by virtue of imitation of a distant model, but also through a dynamic of defensive responses to direct and often violent encounters with the power of expansive nation states such as France and Britain. The short-lived conquest of Europe by Napoleonic France provoked nationalist responses among broad sectors of the literate classes in Germany and Italy. Decades later, ambitious monarchic states (Prussia in Germany's case and Piedmont in Italy's) with embryonic parliamentary systems were to capitalize on those growing passions by achieving national unifications on their own terms through a combination of war, diplomacy, and the mobilization and manipulation of domestic and foreign public opinion.

Over the course of the nineteenth and early twentieth centuries, a new wave of overseas imperialism on the part of some of the major Euro-Atlantic powers plus Japan led to the French conquest of Algeria, the consolidation, expansion, and formalization of British control over South Asia, the expansion and tightening of Dutch power in the East Indies, the

11 John Brewer, *The Sinews of Power: War, Money and the English State, 1688–1783* (Cambridge, MA: Harvard University Press, 1988); Linda Colley, *Britons: Forging the Nation, 1707–1837* (New Haven, CT: Yale University Press, 1992).

late nineteenth-century European partition of Africa and French subjection of Indochina, the American occupation of the Philippines, the Japanese occupation of Korea and Taiwan, and the post-First World War Anglo-French partition of much of the former Ottoman Empire in the Middle East. These expansionist juggernauts led to the anomalous spectacle of some of the world's most liberal-democratic nation states exercising formal imperial rule over hundreds of millions of disenfranchised colonial subjects. The humiliation of conquest and rule by aliens from overseas would have eventually generated resistance in any case, but the hypocrisy and self-contradiction of the situation – awareness of which grew increasingly acute in the course of the first half of the twentieth century among colonial subjects, and particularly among their Western-educated elites (e.g. Mahatma Gandhi and Ho Chi Minh) – galvanized anti-colonial nationalism all the more effectively.

At the same time, those non-Western states that managed to hold on to substantive or even nominal independence responded to the threats and pressures of colonial powers by seeking to selectively adopt and adapt features of successful European self-governance, including the centralization of government, the establishment of meritocratic administrative systems, the mapping of their land, resources, and population, the fostering of economic development, constitutional reform, the quest for equality of status with Western states under international law, and – to hold their societies together under the enormous pressures of such rapid and radical changes – the cultivation of national sentiment. Late nineteenth-century Japan and Siam (Thailand) both underwent intensive transformations along these lines, while the Ottoman Empire and China were among states that sought to do the same. Where such polities had long been associated with a distinctive culture and identity shared by much of the social and administrative elite (“politicized ethnicity,” to use Victor Lieberman’s phrase<sup>12</sup>), reformist regimes had a potential edge in their quest to fashion and promote nationalist consciousness. Japan is a notable case in point, as is Siam. Where blatant ethno-cultural gaps divided rulers from ruled (as in the case of China under the ethnically Manchu Qing dynasty of 1644–1912), or where literate and administratively or economically prominent elites were divided among members of multiple linguistic, religious, and/or ethnic groups (as in the Ottoman and Habsburg empires), the national card was much harder and more dangerous to play (see below).

12 Lieberman, *Strange Parallels*, p. 41.

In brief, over the course of the nineteenth and early twentieth centuries, the idea spread that states functioned most effectively and legitimately when they embodied the identities and thus channeled the energies of their populations. The concept of the modern nation state was diffused by virtue of the dynamics of military and economic competition that appeared to present societies and polities around the world with the alternatives of adapting to this model or else falling victim to it. The ever more tightly woven networks of communication and transportation in the era of the steamship, the telegraph, the news agency, and the railroad helped speed this process of cultural, ideological, and institutional transfer and exchange. Modern nationalism took on its stereotypical role as agent of radical and often violent transformation in the many world regions where close matches did not seem to exist between the existing configuration of political-territorial entities and the distribution of ethno-cultural groups.<sup>13</sup> It was also seized upon as an instrument of political consolidation and economic modernization in countries that had a long history of shared culture and political institutions, such as Japan. Indeed, as C. A. Bayly has pointed out, there was a strong element of convergence at play alongside the factor of diffusion, as dynamics similar to those that fostered state centralization and consequent crystallizations of national sentiment in the Euro-Atlantic sphere manifested themselves in other regions of the world during the nineteenth-century phase of what has come to be called globalization.<sup>14</sup>

The geopolitical implications of modern nationalism were highly diverse, contingent as they were on the infinitely variable (and constantly changing) relationship between political and ethno-linguistic borders, among other factors. Where a common literary language and/or shared historical memory cut across existing political boundaries, as among the multiple states of the German Confederation (successor to the Holy Roman Empire of the German Nation) or the Italian peninsula prior to the 1860s, or the post-Ottoman Arab states of the twentieth century, the logic of nationalism pushed towards the unification of many polities into one (whether unification was actually realized or not). Where even the social, economic, cultural, and administrative elites of an existing polity were sharply divided along lines of language or religion, or by other distinct

13 On nationalism as an actively transformative political movement, see John Breuilly, *Nationalism and the State*, 2nd edn (University of Chicago Press, 1994).

14 C. A. Bayly, *The Birth of the Modern World, 1780–1914* (Oxford: Blackwell, 2004), chapter 6.

markers of communal identity, nationalism threatened to operate as a centrifugal force. This was classically the case among such territorially contiguous, ethno-culturally diverse empires as the Habsburg, Ottoman, and Romanov monarchies. The partition of India at independence in 1947 is another prominent example.

### Nationalism's ideological malleability and pervasiveness: the communist example

The very global extent of its appeal was such that modern nationalism became associated with, and instrumentalized by, an endlessly diverse array of political forces, social groups, states, and movements. It could be used against regimes or by ruling authorities. It could be a source of internal turmoil, a mechanism for political consolidation, and/or a catalyst for interstate conflict. Nationalism continued to be associated with movements of democratization, as in the 1848 revolutions in Europe, the "Wilsonian moment" of 1919,<sup>15</sup> or the Congress Party's struggle for Indian independence. But throughout the nineteenth and twentieth centuries, authoritarian regimes – from Napoleonic France to Bismarck's Prusso-Germany and Hitler's Nazi Germany, Mussolini's Italy to Saddam Hussein's Iraq, Tojo's Japan to Vargas's Brazil – were eager to have their nationalist cake and eat it too, tapping into the power of nationalism as a means of strengthening, rather than loosening, their own preponderant grip on power. By the second half of the twentieth century, the concept of popular sovereignty in the framework of the nation state had become so quasi-universally normative that nationalism in this era could best be understood not so much as a distinctive ideology as an inescapable part of the mental landscape of political modernity. It was a ubiquitous substratum upon which virtually any political ideology had to build, which multiple parties in any country sought to exploit, and with which nearly every movement and regime had to contend. The ideologies associated with or sustained by nationalism varied as radically as the multiple global and historical contexts within which nationalist politics played out.

So inescapable was the logic and force of nationalism in the modern world that movements or regimes that dismissed it as an irrational and destructive

15 Erez Manela, *The Wilsonian Moment: Self-Determination and the International Origins of Anticolonial Nationalism* (Oxford University Press, 2007).

force ultimately found it difficult if not impossible to adhere consistently to this position. As the twentieth century's most globally influential alternative to nationalism, communism provides the most compelling illustration of this point.

Marxists saw nationalism as a transitional phenomenon associated with the capitalist mode of production. To the extent that it was associated with the triumph of the bourgeoisie over feudalism, and in so far as it facilitated the unification of politically and economically fragmented regions into larger, integrated markets – as in the cases of German and Italian unification or the triumph of the Union in the American Civil War – nationalism had a progressive role to play in Marxism's historical script. But for Marxists, class – not nation – remained the fundamental category of collective interest and historical agency. The objective interests of the industrial working class transcended national differences and political boundaries, and it was the task of socialists to awaken the workers to this fact. The proletarian revolution to come was to be carried out in the spirit of internationalism.

Yet in 1914, not only were socialists unable to prevent the outbreak of the First World War; in most cases (Italy in 1915 being a notable exception) socialist political parties embraced their countries' respective causes and pledged their support to their military efforts. To stand firm in opposition to war would have been to cut themselves off from a significant proportion of their own constituencies and to brand themselves traitors in the eyes of their governments. Moreover, even top socialist political leaders found themselves caught up in the euphoric sense of national solidarity that gripped the urban centers of the major belligerents in the first days of war, seeming to sweep away all internal divisions of class and party. It was all too easy for socialists to rationalize support for their own country's cause by arguing that its social and political system was more progressive than its opponents'. And it was all too easy to see through such arguments to the nationalist sentiments that underlay them.

This left the mainstream socialist parties vulnerable to Lenin's charges of hypocrisy – accusations that gained traction as the Great War dragged on and as its enormous toll caused social fissures to reappear, wider than ever, within the belligerent states. In the wake of the 1917 Bolshevik Revolution, Russia's new authorities set about creating a new, worldwide Communist International (Comintern) which laid claim to the mantle of Marxist legitimacy and professed complete devotion to revolutionary internationalism. The Comintern's constituent parties, in turn, were required not to defer to

the alleged national interests of their respective states, but rather to follow the lead of the one Communist Party that had been able not only to seize political power but to hold on to it – namely the Communist Party of the Soviet Union (CPSU).

Yet such was the pervasive force of nationalism in a world where states and societies seemed ever more tightly intertwined that even Soviet Communism was caught up from the start with the problem of how to accommodate it. Soviet nationalities policy, at least as first conceived of by Lenin, was designed to achieve the denationalization of imperial identity. The territorial cohesiveness of the Tsarist Empire had been undermined, Lenin was convinced, by the infusion of Russian nationalist content into the imperial mission – a process that necessarily marginalized and antagonized members of the realm's non-Russian nationalities, as indicated by the wave of secessionist movements that had come in the wake of the 1917 revolutions. Only through a systematic de-Russification of the USSR's identity could the peoples of the former empire develop a shared Soviet political identity that transcended cultural diversity.

During the 1920s, there was a very conscious effort to combat and compensate for the legacy of Russian chauvinism by carving out discrete territorial republics and autonomous regions for the former empire's constituent nationalities. The idea of a policy that would be “national in form, socialist in content” was premised on the assumption that ethno-cultural identity was a neutral medium through which one could diffuse any set of political values, including Marxism–Leninism – just as the Christian Gospel had been spread through translation into a diversity of languages. Through the miracle of dialectical transubstantiation, shared class consciousness and a common commitment to socialist transformation would transcend the very ethno-national particularism that Moscow was institutionalizing, leading to the emergence of a supranational Soviet man and Soviet woman.

In practice, Soviet nationalities policy proved more inconsistent and self-contradictory than dialectical. If any hint of secessionism did manifest itself under this ostensibly egalitarian and enlightened system, it was by definition a symptom of bourgeois reaction and was dealt with accordingly – through the ruthless application of violent force. Under Stalin, the increasing tendency was to apply such force pre-emptively and massively. At the same time, to the extent that Leninist ethno-federalism remained formally in place, the long-term dynamic of that approach was centrifugal rather than centripetal. That is, the creation of formalized territorial boundaries and bureaucratic

distinctions among nationalities served to reify national differences rather than to erode them.<sup>16</sup>

Conversely, to the extent that a trans-ethnic Soviet identity was nonetheless in the process of being created in the USSR, it operated as a sort of territorial nationalism of its own or even as a neo-imperial/Russian nationalism rather than as the launching pad of genuine internationalism. It is true that, for many decades, the loyalty to Moscow of many communist parties around the world remained remarkably consistent – as long as those parties did not succeed in coming to power. But where communist parties did succeed in fighting their own way to power, as in Yugoslavia and China, the states in question tended to move rapidly away from Moscow and, indeed, towards confrontation with it, as they espoused a communist nationalism of their own. One set of exceptions included North Korea, North Vietnam (later Vietnam), and Cuba – all geopolitically positioned such that they could accept Soviet assistance without much risk of losing their national independence, and each needing Soviet support in pursuit of its own nationalist agenda. The other category of exceptions consisted of those countries where communism had been directly or indirectly imposed by the Soviet Union, as in the Eastern European members of the Warsaw Pact. As soon as Soviet support was withdrawn in 1989, these regimes fell to liberal-nationalist revolutions. The forced internationalism of the Warsaw Pact was the exception that proved the rule: even communism could not secure its grip on power without drawing on the sentiments and loyalties of nationalism.

### Nationalism, empire, and ethnic conflict in the twentieth century

For all of nationalism's ideological malleability, there were two elements that were not readily detachable from the modern idea of nationhood: (a) the idea of the nation as a horizontal community of equals; (b) the assertion that one's own nation was at least the equal (in terms both of rights and of cultural and historical achievements) of any other nation on the face of the planet. Unexceptional as these concepts may seem, the transition to a political system compatible with them was and remains a

16 Ronald Grigor Suny, *The Revenge of the Past: Nationalism, Revolution, and the Collapse of the Soviet Union* (Stanford University Press, 1993); Rogers Brubaker, *Nationalism Reframed: Nationhood and the National Question in the New Europe* (Cambridge University Press, 1996), chapter 1.

chaotic and often violence-ridden process. Virulent ethnic conflicts have constituted one significant aspect of a complex, interlocking array of crises associated with the modern transition away from the formally hierarchical, corporate social and political systems that once constituted the nearly universal global norm.

Religious and ethno-cultural affiliations were among the markers used to code for differential corporate status, rights, and obligations in many pre-modern political systems. Across much of pre-modern Europe, Jews were allowed to lend money at interest, but not to own land. Prior to the nineteenth-century reforms, non-Muslim “people of the book” (e.g. Christians and Jews) in the Ottoman Empire enjoyed the protection of the state as long as they accepted their inferior juridical status, suffered institutionalized forms of humiliation, and paid special taxes. Ethnic Manchus and Mongols served in elite units of the Qing armed forces and occupied distinct sectors of garrison communities around the empire. Even as formal inequalities were abolished, their legacies long survived in the form of a continued differentiation of socio-economic function and status: the overwhelming majority of the gentry in Habsburg Hungary were Magyars, while the great majority of Slovaks were peasants; Armenian and Greek Christians remained prominent in the international commerce of the Ottoman Empire while Muslims predominated in the armed forces and administration. Elements of such systems survived well into the nineteenth and twentieth centuries in many parts of the world, including some European states such as the Russian Empire. Similar arrangements were reproduced by the most politically progressive European states in the contexts of their overseas empires: Sikhs and other groups identified as “martial races” were disproportionately recruited into the armed forces of the British Raj; members of the Alawite minority were similarly favored for service in the indigenous auxiliaries armed and trained by the French authorities in Syria, while the British co-opted the traditional, Sunni-Arab minority elite in Iraq; ethnic Chinese were embraced as economic intermediaries by the Dutch authorities in the East Indies (future Indonesia).

Over the course of the nineteenth and early twentieth centuries, the territorially contiguous, multinational empires tended to respond to competitive pressures from abroad and rising demands from below by reducing or abolishing juridical inequalities among subject-population categories other than those of gender and age. Habsburg, Ottoman, and Romanov governments also introduced elements of electoral and representative politics, albeit under the continued aegis of dynastic legitimacy and authoritarian forms of executive power. The transition from corporate to meritocratic society was



difficult and conflict-ridden under the best of circumstances. Where corporate status was closely linked to religion, language, race, and/or ethnic identity – that is, to markers perceived as essential, heritable (whether biologically or culturally), and in some cases practically indelible – the chances of a violent transition were all the higher. Ethno-culturally alien minorities had been easier for culturally majoritarian populations to tolerate as long as they “knew their place” as defined and enforced by the state. The idea of equality for all subjects of an empire or citizens of a state threatened to upset such hierarchies. Imperial regimes’ policies themselves often contributed directly or indirectly to the resultant conflicts.

Given the disturbing course of twentieth-century nationalist politics, it is quite understandable that many historians would look back with a certain degree of nostalgia if not admiration on the seemingly more tranquil, albeit authoritarian, order of the territorially contiguous, multinational empires of yesteryear.<sup>17</sup> However, it would be misleading to portray the fall of these empires – or even of the West European nation states’ overseas empires – as resulting from a unilinear process of nationalist agitation and mobilization from below. Empires were not sleeping giants that just happened to be fatally stung by a poisonous fly called nationalism. Nineteenth- and twentieth-century empires, like their similarly doomed New World predecessors, were actively involved in mutual rivalries and in associated political, economic, and technological modernization projects that, through a variety of dialectical processes and feedback loops, contributed actively to the very nationalization of politics that proved their undoing. Moreover, even as they did away with past forms of inequality among their subjects, the imperial states cast about for new forms of political and cultural identity that could consolidate their authority on firmer ground, in some cases themselves having recourse to what Benedict Anderson has dubbed “official nationalism.”<sup>18</sup>

Thus, when Young Turk reformers, who rose to power in Istanbul following the 1908 revolution, promoted “Ottomanism” as a quasi-national or pan-imperial identity for all the empire’s subjects, they merely begged the question of what cultural substance was to fill this empty vessel. It quickly became obvious that in practice, Ottomanism was to be heavily infused with

17 See, for example, Jane Burbank and Frederick Cooper, *Empires in World History: Power and the Politics of Difference* (Princeton University Press, 2010); Dominic Lieven, *Empire: The Russian Empire and its Rivals* (New Haven, CT: Yale University Press, 2002); Karen Barkey, *Empire of Difference: The Ottomans in Comparative Perspective* (Cambridge University Press, 2008).

18 Anderson, *Imagined Communities*, chapter 6.

Turkic content – given Turkish linguistic predominance among the empire’s core population and military-administrative elite – rather than with elements of Arabic, Armenian, or Greek language and identity. The consequent alienation of non-Turkic elites was predictable. The regime, in turn, responded with ever more coercive forms of official nationalism, culminating in the Armenian genocide carried out under the cover of war in 1915, and setting the scene for the creation of a Turkish nation state in Anatolia in the aftermath of Ottoman defeat in the First World War.

When the Magyar-speaking elites of the Austro-Hungarian Dual Monarchy’s Hungarian half sought to make assimilation into Magyar language and culture an effective condition of upward mobility for the Hungarian kingdom’s Slovaks or Croats, they provoked an all too predictable nationalist backlash. In the Habsburg monarchy’s western half, German nationalism remained a populist phenomenon from which the imperial authorities distanced themselves. Yet the introduction of electoral politics in the late 1800s begged provocative questions about whose collective interests were to be represented in ethnically mixed regions, and thus contributed to rising ethno-nationalist tensions among territorially intermingled language groups such as the Czechs and Germans of Bohemia (the western region of the contemporary Czech Republic).

For its part, the Russian imperial government used its coercive powers to try and Russify parts of its non-Russian-speaking Slavic population, particularly in regions that had once constituted portions of the formerly independent Polish-Lithuanian Commonwealth. In the last years before the First World War, Russian military planners made sharp distinctions between allegedly reliable ethnic Russian elements of the population and unreliable non-Russians or non-Slavs who were seen as obstacles to the creation of a more cohesive body politic (and hence a more disciplined and cohesive conscript army).<sup>19</sup>

Such pressures from above tended to provoke the very nationalist responses from below that they were intended to contain or pre-empt. At the same time, subject populations were being ever more politicized by such factors as the spread of literacy, the tightening of regional as well as global webs of communication, urbanization, and integration (on unequal terms) into global markets, along with the tentative steps towards representative

19 Peter Holquist, “To count, to extract, and to exterminate: population statistics and population politics in late imperial and Soviet Russia,” in Ronald Grigor Suny and Terry Martin, eds., *A State of Nations: Empire and Nation-Making in the Age of Lenin and Stalin* (Oxford University Press, 2001), pp. 111–144.

politics in the multinational empires during the pre-First World War years and in some portions of the overseas empires in the middle decades of the twentieth century. All these forces contributed to the spread (by process of convergent evolution as well as diffusion and mutual imitation) of ideas about the right to popular sovereignty, which in turn further fueled the politicization of ethnicity.<sup>20</sup>

As in the cases of the New World revolutions of the late eighteenth and early nineteenth centuries, twentieth-century separatist outcomes were often the unintended (but not necessarily any less inevitable for that) consequences of what had begun as movements for equality of status *within* existing empires. This was clearly the case in the multinational empires; to a degree it was true even of the overseas empires where the double standards were much more blatant. Almost until the very end, the mainstream of Ottoman Arab, Habsburg Czech, Senegalese, Ivorian, Algerian-Muslim, and (prior to 1919) Indian elites had sought greater measures of self-government and self-determination – or else full and direct participation in decision-making at the metropolitan center – in the context of *reformed imperial frameworks*. Demands for the outright dissolution of empire tended to come later, in response to the frustration of more moderate agendas. Indeed, and once again as in the earlier cases of Britain's and Spain's New World empires (which had collapsed under the impact of global conflicts – the Seven Years' War and the Napoleonic Wars, respectively), it was a pair of world wars and their aftermaths that highlighted how structurally unattainable were visions of compromise between metropolitan centers and imperial peripheries, bringing matters to a climax that many had feared but few had originally desired.

The rise of the nation state out of the rubble of empire – in East Central Europe after 1918 and across much of the Afro-Asian world in the decade and a half or so after 1945 – was supposed to resolve all these problems. But in practice, the triumph of nationalism (even when it was a triumph by default, in the aftermath of imperial collapse) tended to be violently traumatic and led to even more acute dilemmas. As with any political and ideological paradigm shift, things generally got much worse before they began to show any signs of growing better. Recasting the global political order on the basis of popular sovereignty and national self-determination rendered the status of ethno-national minorities more anomalous than

20 See Jörn Leonhard and Ulrike von Hirschhausen, eds., *Comparing Empires: Encounters and Transfers in the Long Nineteenth Century* (Göttingen: Vandenhoeck & Ruprecht, 2011).

ever. By the same token, it often turned members of former majoritarian or dominant groups into subordinate minorities overnight. This had been the experience of Muslims in the Balkan peninsula, as much of it was lost to newly independent, Christian-majority nation states in the course of the nineteenth and early twentieth centuries. Ethnic Germans in post-1918 Poland and Czechoslovakia felt similarly dispossessed as a collectivity, even when their individual civil, political, property, and even cultural rights were respected under the new dispensations. The French settlers in Algeria could not imagine subjecting themselves to majority rule in an independent Algerian state. Tutsis, privileged (and in part defined) as an ethno-racial group under Belgian rule, were left as a suddenly vulnerable minority in post-independence Rwanda.

As Roger Petersen has argued, the prospect or experience of a sudden reversal of ethnic hierarchy can provoke intense resentments, fears, and hatreds, often unleashing horrific patterns of mass violence, ethnic cleansing, or outright genocide.<sup>21</sup> The twentieth century's global transition from empires to nation states, taking place as much of it did in the context or aftermath of massive total wars that tore apart the moral fabric of societies, served to illustrate this point all too dramatically and painfully.

### Nationalism and the international system

The very prevalence in multiple languages of the term "international," serving as it does as a virtual synonym for "interstate," illustrates the degree to which the idea of the nation state has become globally normative. Nationalism, the nation state, and the international system have all shaped one another's evolution in the modern era. The July 1914 crisis was born in part of the Habsburg monarchy's inability to cope effectively with internal and external nationalist challenges in the Balkans, and we have just noted the enormous impact that the First World War in turn had on the spread and evolution of the nation-state system. In the aftermath of that transformative conflict, the liberal internationalism articulated by the likes of Woodrow Wilson led to the institutionalization of the nation state within the framework of a League of Nations that was supposed to enshrine the juridical equality of all nation states, big and small alike, while mediating their relations through arbitration and collective security arrangements that would put an end to war. In practice, the

21 Roger D. Petersen, *Resistance and Rebellion: Lessons from Eastern Europe* (Cambridge University Press, 2006).

League of Nations proved an abject failure on multiple grounds, ranging from the double-standard it maintained between European nation states and colonized peoples allegedly unprepared for political independence, to the United States' failure to join the organization.

Left to fend for themselves, newly created or refounded nation states – alongside longer-established ones – were quickly confronted with the reality that their mutual equality of status in international law was belied by their vulnerability to depredation by stronger states or coalitions of states in the dog-eat-dog world of power politics. Moreover, the principle of national self-determination could be employed just as readily in the destruction of nation states as in their creation. In 1938, Hitler was to press the rhetoric of national self-determination all too cynically into service in the course of his early annexationist moves against neighboring countries (Austria and Czechoslovakia) containing German-speaking populations.<sup>22</sup>

Indeed, it was from the start one of the paradoxes of the nation state system that it potentially undermined the very principle of states' territorial sovereignty (the so-called Westphalian system) that it purportedly legitimized. The distribution of ethno-national groups usually cut across the borders of nation states – an unavoidable outcome given the widespread territorial intermingling of culturally diverse populations. Thus, even as the crystallization of nation states was associated with the transformation of blurry, early modern, interstate frontiers into sharply delineated, modern, international boundaries,<sup>23</sup> nation states also developed claims about their right to intervene on behalf of ethno-cultural kin across those very borders.<sup>24</sup> In all too many cases, the resolution of such potentially explosive situations took the form of massive and violent ethno-demographic re-engineering projects in the context or aftermath of war. It is a disturbing subtext of modern history that the relative stability of some of the most peaceful regions of the contemporary state system, such as the European Union, is built in part on the horrific genocidal campaigns, population transfers, and boundary changes of the first half of the twentieth century, which left in their wake ethno-culturally much more homogeneous states with fewer opportunities for fomenting unrest across one another's borders.<sup>25</sup>

22 See Hitler's January 30, 1939 Reichstag speech in Max Domarus, *Hitler: Reden und Proklamationen, 1932–45* (Würzburg: Mainpresse Richterdruck, 1987), Vol. 3, p. 1049.

23 See Peter Sahlins, *Boundaries: The Making of France and Spain in the Pyrenees* (Berkeley, CA: University of California Press, 1989).

24 Brubaker, *Nationalism Reframed*, chapter 3.

25 See Jerry Muller, "Us and them: the enduring power of ethnic nationalism," *Foreign Affairs* 87:2 (March/April 2008), 18–35.

Nationalist sentiments and arguments could also be instrumentalized by great powers in subtler ways. One of the modern era's most favored techniques of exercising hegemony without formally annexing territory has been what I would call "sponsored self-determination."<sup>26</sup> Its origins can be traced at least as far back as Revolutionary and Napoleonic France's sponsorship of nominally self-governing polities (e.g. the Grand Duchy of Warsaw) across portions of Europe, and Britain's nineteenth-century enforcement of the United States's Monroe Doctrine, which conveniently left the newly independent countries of Latin America open to British exports, investments, and influence.

But it was in the twentieth century that sponsored self-determination really came into its own. By 1919, the term "self-determination of nations" had become a universal catchphrase. This was thanks in part to the soaring rhetoric of Woodrow Wilson and the expectations it raised not only in Europe but across much of the colonial world, as Erez Manela has documented.<sup>27</sup> It was also propagated by the Bolsheviks, with whom Wilson was competing for global support.<sup>28</sup> But the first practical application of the concept in the context of the First World War had not taken the form of national independence for a formerly oppressed people. Instead, the ideal was used as a fig leaf for one state's conquest of another's territory. Imperial Germany's wartime occupation of the Russian partition of Poland was dressed up as a prelude to the restoration of a self-governing Polish monarchy. Berlin's cynical manipulation of the self-determination principle came to a climax in the Treaty of Brest-Litovsk, under whose terms the disposition of territories ceded by Russia was to be determined by Germany and Austria-Hungary "with the consent of their inhabitants."<sup>29</sup> The West followed suit, as it were, with the League of Nations mandates that allowed British and French expansion at Ottoman and German-colonial expense to call itself something other than naked imperialism.<sup>30</sup> For

26 On the manipulation of national self-determination doctrine by twentieth-century imperial powers, see Prasenjit Duara, *Sovereignty and Authenticity: Manchukuo and the East Asian Modern* (Lanham, MD: Rowman & Littlefield, 2003).

27 Manela, *Wilsonian Moment*.

28 Arno J. Mayer, *Political Origins of the New Diplomacy, 1917–1918* (New Haven, CT: Yale University Press, 1959).

29 From Article 2 of the treaty, which is available online at [http://avalon.law.yale.edu/20th\\_century/bl34.asp#treatytext](http://avalon.law.yale.edu/20th_century/bl34.asp#treatytext). See also Borislav Chernev, "The Brest-Litovsk moment: self-determination discourse in Eastern Europe before Wilsonianism," *Diplomacy & Statecraft* 22:3 (September 2011), 369–387.

30 For a critique of the League of Nations (and of the original vision for its successor, the United Nations) as an exercise in "imperial internationalism," see Mark Mazower, *No Enchanted Palace: The End of Empire and the Ideological Origins of the United Nations* (Princeton University Press, 2009).

their part, as we have seen, the Bolsheviks proved even more adept at utilizing the outward forms of national self-determination for the peoples of the former Russian Empire as instruments for the Communist Party's exercise of centralized, supranational control. There was indeed a multitude of variations upon this formula. Some of the resultant relationships were formal, as in the constitution of the ostensibly ethno-federal USSR; others were informal, as in Britain's negotiation of highly qualified independence for Egypt and Iraq during the interwar years, or in Japan's 1932 creation of a puppet-state (Manchukuo) in Manchuria.

Yet, if the concept of national self-determination could be cynically exploited in the short term as a fashionable new fig leaf for imperialism, this approach often backfired in the longer term. Fig leaves may eventually end up striking root and sprouting in ways that those who first employed them never imagined possible. Arab nationalism certainly did not prove conducive to the long-run survival of British hegemony in the Middle East. With the collapse of the Communist ideology and party that had held the USSR together, the country fragmented into the very national republics that had once served Moscow as convenient façades for its centralized power. Conversely, in cases where the ascription of a distinctive political identity to a subject population had little popular resonance, the credibility of the venture might be cast into doubt from the very first, as was the case with Manchukuo.

Whereas the League of Nations played an ambiguous role as both upholder of national self-determination and legitimizer of imperial expansion, its post-Second World War successor organization, the United Nations, rapidly evolved into a forum for the advocacy and celebration of decolonization.<sup>31</sup> Yet the very global spread of the nation state has raised questions about its sustainability in many cases. The nationalist movements that came to power across much of Africa and Asia in the second half of the twentieth century were often defined more by their struggle against subjection, exploitation, and humiliation at the hands of European colonial powers than by a shared sense of ethnic, cultural, historical, or political identity. This is because the territorial configuration of these polities usually reflected political boundaries and administrative divisions that had been fixed by imperial powers with little or no regard for the legacies of pre-imperial polities or the distribution of ethno-linguistic or religious groups. Once the yoke of imperialism had been lifted, there was little left to bind together the elites or masses of nominal nation states

<sup>31</sup> Ibid. chapter 4.

formed on the territories of, say, the former Belgian Congo or Anglo-Egyptian Sudan. Conversely, in the Arab world, the logic of nationalism cut across the political boundaries of individual states, many of whose regimes sought to reinforce their authority by claiming leadership of the ultimately unrealizable pan-Arab nationalist cause. Among the exceptions to this fragility of Afro-Asiatic polities, a striking number are nation states that can in fact trace their origins to pre-modern times, such as Thailand, China, or Iran. It is fashionable among contemporary scholars to insist that, as a social construction, it makes no difference to its functionality whether or not a national identity draws upon pre-modern antecedents. Yet as time passes, there appear to be some striking correlations between the presence or absence of an “available past,”<sup>32</sup> and the prospects for a nation state’s long-term existence within roughly stable territorial borders (regardless of interstate conflicts, internal ideological upheavals, and changes of regime).<sup>33</sup>

Even as many of the world’s polities can still be described as states in search of nations, and many of its societies as nations in search of states, the wave of economic and technological globalization that has been sweeping the planet since the end of the Cold War has led some to question the continued relevance or viability of the nation state as a model of governance. Yet, as this essay has sought to highlight, modern nationalism and the model of the nation state were themselves developed and diffused in close association with earlier patterns of globalization. It would be premature to assume that, as world history continues to unfold, the nation state and nationalism will not have a vital – at times productive and at times destructive – role to play in mediating the relationship between the global and the local.

## Further reading

### *Primary sources*

Domarus, Max. *Hitler: Reden und Proklamationen, 1932–45*, Vol. 3. Würzburg: Mainpresse Richterdruck, 1987.

Sieyès, Emmanuel Joseph. *Qu’est-ce que le Tiers état?* [1789]. Paris: Editions du Boucher, 2002.

“Peace Treaty of Brest-Litovsk.” [http://avalon.law.yale.edu/20th\\_century/bl34.asp#treatytext](http://avalon.law.yale.edu/20th_century/bl34.asp#treatytext).

32 Rogers Brubaker, *Ethnicity without Groups* (Cambridge, MA: Harvard University Press, 2004), p. 204.

33 Bayly, *Birth of the Modern World*, p. 219, makes a similar point.



Secondary sources

- Adelman, Jeremy. "Iberian passages: continuity and change in the South Atlantic." In David Armitage and Sanjay Subrahmanyam, eds., *The Age of Revolutions in Global Context, c. 1760–1840*. Houndsmills: Palgrave Macmillan, 2010, pp. 59–82.
- Anderson, Benedict. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, 2nd edn. London: Verso, 1991.
- Barkey, Karen. *Empire of Difference: The Ottomans in Comparative Perspective*. Cambridge University Press, 2008.
- Bayly, C. A. *The Birth of the Modern World, 1780–1914*. Oxford: Blackwell, 2004.
- Bell, David A. *The Cult of the Nation in France: Inventing Nationalism, 1680–1800*. Cambridge, MA: Harvard University Press, 2001.
- Breuilly, John. *Nationalism and the State*, 2nd edn. University of Chicago Press, 1994.
- Brewer, John. *The Sinews of Power: War, Money and the English State, 1688–1783*. Cambridge, MA: Harvard University Press, 1988.
- Brubaker, Rogers. *Ethnicity without Groups*. Cambridge, MA: Harvard University Press, 2004.
- Nationalism Reframed: Nationhood and the National Question in the New Europe*. Cambridge University Press, 1996.
- Burbank, Jane, and Frederick Cooper. *Empires in World History: Power and the Politics of Difference*. Princeton University Press, 2010.
- Chernev, Borislav. "The Brest-Litovsk moment: self-determination discourse in Eastern Europe before Wilsonianism." *Diplomacy & Statecraft* 22:3 (September 2011), 369–387.
- Colley, Linda. *Britons: Forging the Nation, 1707–1837*. New Haven, CT: Yale University Press, 1992.
- Duara, Prasenjit. *Sovereignty and Authenticity: Manchukuo and the East Asian Modern*. Lanham, MD: Rowman & Littlefield, 2003.
- Elliott, Mark. *The Manchu Way: The Eight Banners and Ethnic Identity in Late Imperial China*. Stanford University Press, 2001.
- Gellner, Ernest. *Nations and Nationalism*. Ithaca, NY: Cornell University Press, 1983.
- Holquist, Peter. "To count, to extract, and to exterminate: population statistics and population politics in late Imperial and Soviet Russia." In Ronald Grigor Suny and Terry Martin, eds., *A State of Nations: Empire and Nation-Making in the Age of Lenin and Stalin*. Oxford University Press, 2001, pp. 111–144.
- Kantorowicz, Ernst H. *The King's Two Bodies: A Study in Mediaeval Political Theology*. Princeton University Press, 1957.
- Leonhard, Jörn, and Ulrike von Hirschhausen, eds. *Comparing Empires: Encounters and Transfers in the Long Nineteenth Century*. Göttingen: Vandenhoeck & Ruprecht, 2011.
- Lieberman, Victor. *Strange Parallels: Southeast Asia in Global Context, c. 800–1830*, Vol. 2: *Mainland Mirrors: Europe, Japan, China, South Asia and the Islands*. Cambridge University Press, 2009.
- Lieven, Dominic. *Empire: The Russian Empire and its Rivals*. New Haven, CT: Yale University Press, 2002.
- Manela, Erez. *The Wilsonian Moment: Self-Determination and the International Origins of Anticolonial Nationalism*. Oxford University Press, 2007.

- Mayer, Arno J. *Political Origins of the New Diplomacy, 1917–1918*. New Haven, CT: Yale University Press, 1959.
- Mazower, Mark. *No Enchanted Palace: The End of Empire and the Ideological Origins of the United Nations*. Princeton University Press, 2009.
- Muller, Jerry. “Us and them: the enduring power of ethnic nationalism.” *Foreign Affairs* 87:2 (March–April 2008), 18–35.
- Petersen, Roger D. *Resistance and Rebellion: Lessons from Eastern Europe*. Cambridge University Press, 2006.
- Roshwald, Aviel. *The Endurance of Nationalism: Ancient Roots and Modern Dilemmas*. Cambridge University Press, 2006.
- *Ethnic Nationalism and the Fall of Empires: Central Europe, Russia and the Middle East, 1914–1923*. London: Routledge, 2001.
- Sahlins, Peter. *Boundaries: The Making of France and Spain in the Pyrenees*. Berkeley, CA: University of California Press, 1989.
- Smith, Anthony D. *The Antiquity of Nations*. New York: Polity Press, 2004.
- Suny, Ronald Grigor. *The Revenge of the Past: Nationalism, Revolution, and the Collapse of the Soviet Union*. Stanford University Press, 1993.
- Wood, Gordon. *The Americanization of Benjamin Franklin*. New York: Penguin, 2005.

## Assessing imperialism

DANIELLE KINSEY

If we were to look at a political map of the world in 1750, the most dominant configuration would not be nation states but empires. The same is true for a map of 1850, especially when we remember that most of the nation states of Europe at that time were also empires or aspiring empires. The categories of “empire” and “nation” were not mutually exclusive, and people around 1850 were more likely to consider the two as simultaneous and mutually beneficial rather than as diachronic and antagonistic. We would expect a map of 1950 to reflect nation-state hegemony, especially with the rise of the United Nations in 1945, but, even then, we would still be able to observe empires in operation around the world. Growing United States and Soviet power at that time could be framed as imperial paradigms in their own right. Empire has been a fundamental structure of world history for thousands of years, and this has continued to be the case in the last few hundred years, the so-called modern period. “By comparison,” as historians Jane Burbank and Frederick Cooper argue in their *Empires in World History* (2010), “the nation-state appears as a blip on the historical horizon, a state form that emerged recently from under imperial skies and whose hold on the world’s political imagination may well prove partial or transitory.”<sup>1</sup>

This chapter will discuss four related questions about the history of imperialism since about 1750, and the way this has been studied. The first and second might appear simple, but have engendered much heated debate in academic and public circles: “What are empires?” “How did they work?” The traditional approach described imperial expansion as a monolithic extension of core power, but scholarship of late has come to appreciate the ways in which imperial formation was incomplete, heterogeneous, and contingent

1 Jane Burbank and Frederick Cooper, *Empires in World History: Power and the Politics of Difference* (Princeton University Press, 2010), p. 3.

upon local conditions. In that regard, the third question, “How did resistance matter?” is one of the most pressing in imperial studies today. The final question arises from the endurance of empire in human history, and speaks to issues of change within this continuity, “How was modern imperialism different from earlier efforts?” This question contends with the transnational and global “turns” in imperial scholarship and discusses different approaches to the relationship between imperialism and globalization. Some would argue that the two phenomena were (and continue to be) essentially the same process, while others who write the history of connections that cut across or “provincialize” imperial structures have revealed a less deterministic relationship between the two.

### What are empires?

Across the world in the middle of the eighteenth century there were dozens of political units that people at the time recognized as empires, colonies, and metropolises (or “seats” of imperial power). World historians have tended to divide these formations into two basic categories: “land” and “overseas” empires. The land exemplars included the Russian, Ottoman, and Qing empires, which had expanded over centuries through military conquest, annexation, and alliances from smaller core areas to rule vast contiguous territories, as well as slightly smaller land-based empires such as the Austrian or the Mughal (Map 13.1).

The overseas empires in 1750 were largely European, the result of colonial ventures that began in the late fifteenth century. Portuguese colonies included Brazil, small posts along the east and west coasts of Africa, and at Goa, Sri Lanka, Macao, and a few other places in Asia. Spain built the largest colonial empire in the western hemisphere, and also established colonial rule in the Philippines. In the seventeenth century, the Dutch won their independence from Spain, and established more colonies and trading centers in South Africa, the Americas, and Southeast Asia; they became the major European power in the Indian Ocean basin. A second wave of colonization that began in the 1660s resulted in French and British colonies in North America, the Caribbean, and South Asia. Wars in the last half of the eighteenth century gave Britain many of France’s overseas colonies, and it became the major power in the Indian Ocean, eclipsing the Dutch. Although Britain lost much of North America with the American War of Independence (1776–1783), it retained territory that would become Canada and in 1787 it established a penal colony in Australia (Map 13.2).



Map 13.1 Eurasia in 1750, with Russian, Ottoman, Qing, Austrian, and Mughal empires



Map 13.2 European overseas empires in 1783, showing those of Portugal, Spain, the Dutch Republic, France, and Britain

While dividing empires into land- and sea-based makes sense for an introduction to the topic, it also has important disadvantages. One is the tendency to dismiss land empires as pre-modern, inward-looking, and “Oriental,” and valorize European sea-based formations as the engines of modernity and globalization. Another is the tendency to classify an empire into one category or the other, and thus to overlook the simultaneity of land and sea projects in every empire in this period as well as ignore those that did not fit easily into a category. The Spanish Empire, for example, is sometimes left out of these discussions, as it defies easy categorization, with its large swaths of land claims in the Americas, Europe, and Southeast Asia, trading enclaves along the west coast of Africa, plantation operations in the Caribbean and Philippines, and vast trade networks that spanned the Indian, Atlantic, and Pacific Oceans. Likewise, to imagine the British Empire as essentially a seafaring effort is to dismiss the land empires it attempted to govern in North America, South Asia, and Australasia. The same could be said for the Portuguese in Brazil and the French in North America, Southeast Asia, Algeria, and West Africa. The territory and populations these countries claimed authority over in their “overseas” empires, in many cases, went beyond mere enclaves and was on a scale far greater than that of their land and population governance in Europe.

Conversely, the Ottoman Empire, often seen as a classic land empire, could just as easily be framed as an empire built on controlling seaways – the Red, Black, and Mediterranean Seas – and it was Ottoman control of the Mediterranean that propelled Italian, Spanish, and Portuguese traders into Atlantic exploration.<sup>2</sup> For Russia, mercantilist activities based out of St Petersburg nearly monopolized the lumber trade in northern waters, and Crimea was a valuable Black Sea territory. The Chinese Qing empire consciously prioritized Central and Northern Asian expansion over seafaring efforts, but was still very invested in maintaining control of overseas trade in East and Southeast Asia, which it did quite successfully until the Opium Wars with Britain, beginning in 1839.<sup>3</sup> Less well-known eighteenth-century empires, such as the Asanti in West Africa, the Iroquois

2 Dina R. Khoury and Dane K. Kennedy, “Comparing empires: the Ottoman domains and the British Raj in the long nineteenth century,” *Comparative Studies of South Asia, Africa and the Middle East* 27:2 (2007), 233–244. See Peter F. Bang and C. A. Bayly, eds., *Tributary Empires in Global History* (London: Palgrave, 2011), p. 6, for a counter-argument.

3 See Eric Tagliacozzo and Wen-Chin Chang, eds., *Chinese Circulations: Capital, Commodities, and Networks in Southeast Asia* (Durham, NC: Duke University Press, 2011).

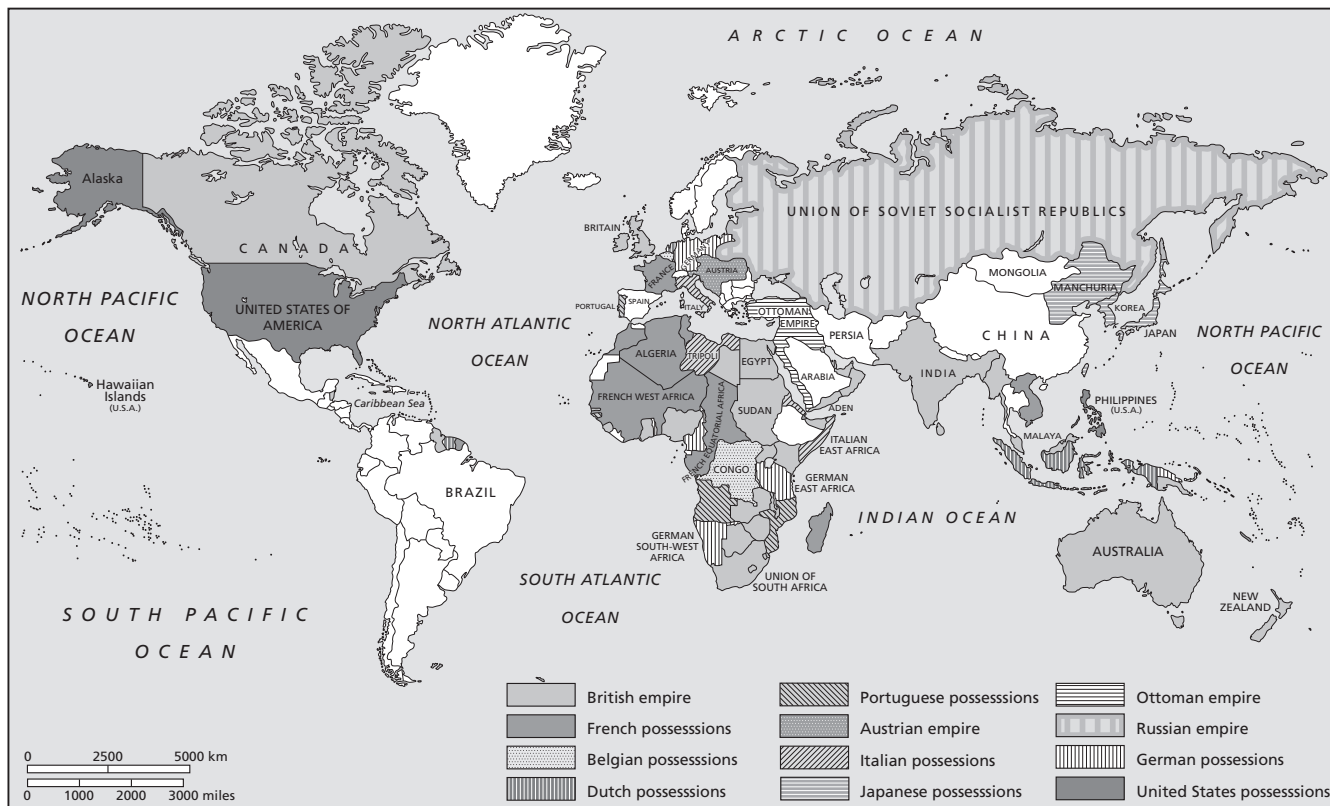
Confederacy in North America, Kamehameha I's Kingdom of Hawai'i, and Tipu Sultan's Kingdom of Mysore in South Asia, also sustained themselves by asserting authority over both territory and waterways. Thus, while the "land" versus "sea" distinction might help us imagine zones on a map, it does not really facilitate a complex understanding of what empire entailed.

The empires that were created or expanded in the nineteenth century also combined land and sea power. In 1858 the British government took over the rule of much of India from the private East India Company, and then expanded British holdings to include Burma, Malaya, and parts of Borneo. At the same time the French seized Vietnam, and then Laos and Cambodia to form French Indochina in 1887, and the Dutch government took over direct control of Java and other islands from the Dutch East India Company, leaving Siam as the only independent state in Southeast Asia. Between 1880 and 1914, Britain, France, Germany, Belgium, Spain, and Italy scrambled to grab parts of Africa, and by 1914 controlled almost all of the continent except Ethiopia and Liberia. At the end of the nineteenth century, the United States took control of the former Spanish colonies of Cuba, Puerto Rico, and the Philippines, and Japan annexed Taiwan and made Korea a protectorate (Map 13.3).

Whether they divide empires into land- and sea-based or not, most considerations of empires have tended to view them in political and military terms, that is, as territorial conquests by an established state. Since at least Edward Gibbon's *The Decline and Fall of the Roman Empire*, the first volume of which was published in 1776, that definition has been the most common, and has been generally used in the large and long-standing field of "imperial history."<sup>4</sup> This type of history was thought of as independent from "national history" and concentrated mostly on military strategy, diplomatic arrangements, wars, and the personalities and motivations of powerful "men on the spot" who won territory, people, and resources for the empire they served. Some historians have sought to break up this emphasis on the "great men" of empire-building by focusing on other aspects of economy and society, such as religion and trade, but they still generally maintain the idea of an empire as an essentially bounded entity, with obvious borders and characteristics, in the charge of a handful of visionaries or fools, depending on how they kept,

4 Edward Gibbon, *The Decline and Fall of the Roman Empire*, abridged (London: Penguin, 1952), pp. 55–59, 89.





Map 13.3 Major overseas empires in 1914

expanded, or lost parts of the empire.<sup>5</sup> Readers of recent books by Niall Ferguson or John Darwin will find their emphasis on political economy, diplomats, and influential personalities in line with this tradition of scholarship.<sup>6</sup>

This view of empires as bounded political territories has shaped popular understandings of empire, for which one need look no further than video games. Like the board games of an earlier generation, games such as the *Age of Empires* and *Europa Universalis* series present a picture of empire-building as the projection of a homogeneous, socially and politically stable “core” out into the world to reproduce itself and assimilate others. A “blue” territory, for example, while struggling to advance itself in overdetermined technological ways, takes over areas of the map and those areas turn blue. Perhaps blue fights against red and yellow countries, factions that are, themselves, trying to turn large swaths of the map red and yellow. Victory is achieved with force; if the armies of red and yellow are annihilated, blue can impose its will on the rest of the map and it is, literally, game over.<sup>7</sup>

Within the last several decades, some historians, working to practice what they call “new imperial history,” have developed a more flexible conceptualization of empire, one that stresses power inequalities in many realms rather than the concentration on politics, technology, and the military that has traditionally dominated both scholarly and popular views of empire. This newer view pays more attention to resistance, hybridity, the enduring effects of colonial violence, cultural difference within empires, and cultural and social issues more generally. In *Bodies in Contact* (2005), for example, new imperial historians Antoinette Burton and Tony Ballantyne have posited this definition of empire: “webs of trade, knowledge, migration, military power, and political intervention that allowed certain communities to assert their influence and sovereignty over other groups . . . these ‘imperial webs’ functioned as systems of exchange, mobility, appropriation, and extraction, fashioned to enable the empire-building power to exploit the natural resources,

5 For the newest research in this historical tradition, see the *Journal of Imperial and Commonwealth History*, which began publication in 1972, and concentrates primarily on the British Empire. See also *The Oxford History of the British Empire*, especially Robin Winks, ed., *OHBE*, Vol. 5: *Historiography* (Oxford University Press, 1999).

6 Niall Ferguson, *Empire: The Rise and Demise of the British World Order and the Lessons for Global Power* (New York: Basic Books, 2002); John Darwin, *The Empire Project: The Rise and Fall of the British World-System, 1830–1970* (Cambridge University Press, 2009).

7 For a deeper and more optimistic discussion of video games, see Matthew Wilhelm Kapell and Andrew B. R. Elliott, eds., *Playing With the Past: Digital Games and the Simulation of History* (London: Bloomsbury, 2013).

manufactured goods, or valued skills of the subordinated group.”<sup>8</sup> This web concept allows us to view imperial formation as territorial but also as financial, cultural, and informational. In this understanding, an empire does not even have to be governmental in terms of state power, but could include multinational companies and other kinds of transnational organizations, such as the Roman Catholic Church or the World Bank.<sup>9</sup>

Studies that use this broader definition of empire often focus on cultural issues, and are sometimes carried out by scholars of literature as well as historians. For example, in the eighteenth century empires were often equated with living bodies that have arms, hearts, heads, tongues, bosoms, births, growths, declines, and deaths. This corporeal metaphor extended to overseas settler colonies, which were imagined to be children of established parental bodies. Colonial rebellions, such as the American Revolution, were depicted as children acting out against their parents, because of either over-indulgence or neglect in their upbringing. As the literary critic Anna Mae Duane has argued, American independence did not obliterate the parent-child metaphor; instead it led to an intense late eighteenth- and nineteenth-century Western interest in “proper” parenting and the ideals of healthy childhood, with the stakes of childrearing seen as bound up in imperial maintenance.<sup>10</sup>

The notion of “imperial webs” has not been accepted by all, as some scholars want to maintain a distinction between empires formed by state governments and those that were less overt, militarized, or official, such as “spheres of influence” or “informal empires” or sometimes “soft empires.”<sup>11</sup> But trying to distinguish between formal and informal empires can be as difficult as trying to distinguish between land- and sea-based ones. This can be seen in efforts to delineate the boundaries of the British Empire in the nineteenth century, for example. Historians Anthony Hopkins and Peter Cain have argued that the backbone of British imperial expansion was the practice of “gentlemanly capitalism” or a propensity towards facilitating overseas investment that entangled the aristocracy and the British government in myriad territorial claims, economic revolutions, and diplomatic emergencies. In Hopkins and Cain’s analysis, the “informal” locations of

8 Tony Ballantyne and Antoinette Burton, eds., *Bodies in Contact: Rethinking Colonial Encounters in World History* (Durham, NC: Duke University Press, 2005), p. 3.

9 Ibid. pp. 1–5.

10 Anna Mae Duane, *Suffering Childhood in Early America: Violence, Race, and the Making of the Child Victim* (Athens, GA: University of Georgia Press, 2010), pp. 129–131.

11 Stephen Howe, ed., *The New Imperial Histories Reader* (London: Routledge, 2009), pp. 3–11.

British power – much of Latin America, and Brazil in particular – were just as instrumental to British imperialism as was British direct rule in the Raj of India. They call for scholarship that is not invested in delineating boundaries between formal and informal or hard and soft empires, but instead focuses on analyzing the two as different aspects of the same project.<sup>12</sup> The Brazilian example makes their case very well: although slavery was abolished in the formal British Empire in the 1830s, British financiers and business-owners continued to profit from their heavy interests in Brazil's slave labor economy. Brazil operated as an informal colony of Britain in the nineteenth century, with British financiers comprising a powerful lobby against abolitionism; slavery was not abolished in Brazil until 1888. The informality of Brazil within British imperial networks thus facilitated a level of exploitation that could not be achieved under formal conditions, and to argue that this exploitation is outside the purview of the historian of the British Empire would be to ignore this crucial piece of imperial political economy.<sup>13</sup>

Just as there are complications in delineating the outer boundaries of empires, it is difficult to find areas within empires that were wholly untouched by imperialism. To capture this idea, historians have developed the concept of "internal colonialism," which refers to the creation of structural and cultural power inequalities *within* subsets of empires such as colonies, metropolises, and nation states. Nation-building projects in the nineteenth and twentieth centuries were often promoted through "unification" or "confederation" narratives, but entailed the subordination of certain groups within an asserted national boundary. "Frontier" expansion, aboriginal policy, and indigenous resistance movements, in much of the Americas, Algeria, South Africa, Australia, and New Zealand, are classic topics of internal colonialism, but we could just as easily consider the "forging" of Britain, Spain, Germany, or Italy as internal colonialism as well. Each of these national histories can be seen as expansionist narratives where one state – England, Castile, Prussia, or Piedmont, respectively – asserted its will over surrounding states and worked to incorporate them into a nationalist vision that maintained supremacy for one state. Persistent independence movements in Scotland and Catalonia belie these developments as inevitable or

12 P. J. Cain and A. G. Hopkins, *British Imperialism: 1688–2000*, 2nd edn (New York: Routledge, 2000), pp. 1–61, 271–274. For discussions of US involvement with and informal empires in Latin America, see also Gilbert Michael Joseph et al., eds., *Close Encounters of Empire: Writing the Cultural History of US–Latin American Relations* (Durham, NC: Duke University Press, 1998).

13 Marika Sherwood, *After Abolition: Britain and the Slave Trade Since 1807* (New York: I. B. Tauris, 2007), pp. 83–110.

uncontested. Ironically, the designation of “land empire” makes the reality of internal colonialism obvious and immediately does away with any notion that the Russian, Austrian, Mughal, or Chinese empires – just to give a few examples – were homogeneous, tension-free entities.

Given the flexibility of conceiving of empires as networks that gave rise to relationships of inequality, and the problems of delineating clear boundaries between informal capitalist networks, formal political networks, and other kinds of exchange after 1750, one might ask the question, “When *aren’t* we studying empires?” This is a productive question, because it forces us to evaluate any given web or network with the question of imperialism in mind, rather than make prior assumptions about when and where empire applies. Instead we ask: Did a given network give rise to power inequalities? Was it part of a pattern of exploitation, and did it empower organizations and individuals associated with formal states? Reflecting this change in perspective, Burton and Ballantyne, for example, see empires after 1750, “not as coherent wholes that can be recovered in their seamlessness, but rather as the accumulation of often incommensurate fragments.”<sup>14</sup> They follow anthropologist Ann L. Stoler’s insistence that we approach imperial studies not through the assumption that colonial regimes were all-powerful and had well-defined, singular motives and jurisdictions, but that they were “uneven, imperfect, and even indifferent,” to many developments within them. Add to this the study of how imperial networks changed over time and imperial history becomes very complex work with only, as Stoler puts it, “working concepts” of imperialism for us to grasp onto and continually re-evaluate in different historical contexts.<sup>15</sup> A universal definition of empire is impossible to achieve.

### How did empires work?

In contrast to the video game example above in which blue absorbs or assimilates as much as possible to the blue condition, scholars such as Burbank and Cooper have shown that colonial empires operated through maintaining or creating difference. Establishing an empire that worked over time meant establishing an unequal power relationship between at least two groups, traditionally described as the “colonizer” and the “colonized.”<sup>16</sup> The

14 Tony Ballantyne and Antoinette Burton, *Empires and the Reach of the Global, 1870–1945* (Cambridge, MA: Belknap Press of Harvard University Press, 2012), p. 22.

15 Ann L. Stoler, *Carnal Knowledge and Imperial Power: Race and the Intimate in Colonial Rule* (Berkeley, CA: University of California Press, 2002), p. 206.

16 Burbank and Cooper, *Empires in World History*, pp. 11–13.

assertion of this power relationship, often known in historical scholarship as the “imperial project,” was manifested in many ways, from obvious physical domination in terms of military and territorial power to more subtle interaction, such as one group’s endeavor to write the history of another. There was (and is) no such thing as an empire of equals, a situation that led V. I. Lenin and other founders of the Soviet Union to claim that they were working against imperialism by promoting class equality within the Soviet Union itself.<sup>17</sup> It follows that empires *required* a certain degree of diversity within them for this unequal power relationship to be asserted and justified.

Two models of describing the relationship between “colonizer” and “colonized,” or metropole and colony, predominate in studies of empire. The more traditional paradigm is the so-called “hub-and-spoke” or “core and periphery” model. It posits a stable, already-formed, “civilized” core that projected governmental organization, personnel, technology, financial means, religion, metropolitan culture, and all the trappings of civilization out into various peripheral, colonial spaces. In return, the metropole received raw materials that were enfolded in the momentum of metropolitan economic development. For empires created or expanded after 1750, this model sees influence and agency originating in the national hub and being sent out through the spokes to the periphery, thus keeping separate the two categories of “colonizer” and “colonized.” The two categories are imagined to be in a straightforward diachronic relationship: colonizer forms, expands outwards, and influences the colonized, not unlike the blue expansionism in the video game example above.<sup>18</sup> In this way of thinking, it follows that those writing the history of a colony need to study metropolitan formations, but those writing the history of the metropole do not need to pay much attention to colonies, as these are of only incidental significance.

This model of modern imperialism has been under attack since at least the late nineteenth century when, among others, economists such as Dadabhai Naoroji and J. A. Hobson began critiquing British imperialism by highlighting the fact that Britain owed much of its economic prosperity to the exploitation

17 V. I. Lenin, *Imperialism, the Highest Stage of Capitalism* (c. 1916; New York: International Publishers, 1939). As George Orwell famously observed, in the actual functioning of the Soviet Union as opposed to its claims, some were more equal than others. George Orwell, *Animal Farm: A Fairy Story* (c. 1945; Los Angeles: Green Light, 2012).

18 Catherine Hall, “Introduction: thinking the postcolonial, thinking the empire,” in Catherine Hall, ed., *Cultures of Empire: A Reader* (New York: Routledge, 2000), pp. 1–33. Here I am collapsing core/periphery and colony/metropole models into one. See Kevin Grant, Philippa Levine, and Frank Trentmann, eds., *Beyond Sovereignty: Britain, Empire and Transnationalism, c. 1880–1950* (London: Palgrave, 2007), p. 8.

of its empire, particularly in India.<sup>19</sup> Eric Williams extended this point in 1944 with the publication of *Capitalism and Slavery*, in which he showed that British industrial might was largely predicated upon slavery and the imperial cotton trade in the Atlantic world.<sup>20</sup> In French historiography, as early as 1938 C. L. R. James argued that the Haitian and French revolutions needed to be understood as mutually engaged developments.<sup>21</sup> In the context of mid-twentieth-century decolonization, others such as Frantz Fanon and Aimé Césaire built upon this insistence on the imperial context of European development. Taken together, this historiography sought to critique European imperialism by, first, bringing European and colonial histories into the same analytical frame, and second, showing how much the imperial/colonial relationship led to the development of Europe – conceptually, economically, culturally, and, of course, politically. As Fanon famously argued in *The Wretched of the Earth* (published in French in 1961), “Europe is literally the creation of the Third World.”<sup>22</sup> Likewise, Césaire’s *Discourse on Colonialism* (published in French in 1955) reasoned that the devastation wrought in Europe during the World Wars, and Nazi racism in particular, resulted from cultures and technologies of violence that were first created in colonial settings in the name of imperialism and then made their way to Europe.<sup>23</sup> Césaire’s argument certainly holds for the history of the concentration camp: camps were developed by imperial powers almost simultaneously within the British and Spanish empires between 1898 and 1902, as Spain dealt with Cuban and Filipino anti-colonial nationalist uprisings (and eventually war with the United States), and Britain attempted to force a Boer surrender in the Second South African War. Hitler, himself, was fascinated with Boer history.<sup>24</sup>

Taking their cue from these mid-twentieth-century works, more scholars emerged in the 1980s and 1990s who questioned the logic of the hub-and-spoke paradigm, particularly its single-minded emphasis on metropole-to-colony influence. Those working within British imperial frameworks took the lead, showing that the national structures and cultural performances of Britain did not develop first and then get exported to the colonial world, but

19 On Dadabhai Naoroji, see Sukanya Banerjee, *Becoming Imperial Citizens: Indians in the Late-Victorian Empire* (Durham, NC: Duke University Press, 2010), pp. 36–74. J. A. Hobson, *Imperialism* (1902; Cambridge University Press, 1992).

20 Eric Williams, *Capitalism and Slavery* (Chapel Hill, NC: University of North Carolina Press, 1944).

21 C. L. R. James, *The Black Jacobins* (London: Penguin, 2001).

22 Frantz Fanon, *The Wretched of the Earth* (New York: Grove, 1963), p. 58.

23 Aimé Césaire, *Discourse on Colonialism* (New York: Monthly Review Press, 2000), pp. 36–37.

24 H. L. Wesseling, *The European Colonial Empires, 1815–1919* (London: Pearson, 2004), pp. 138–139.



rather emerged in tandem with British imperialism. Scholars of material culture showed that the *things* of quintessential Georgian and Victorian behavior – tea-drinking, the coffee house, sugary foods, chocolate, mahogany furniture, ivory trinkets, snuff, cotton textiles, diamond jewelry, rice, curry, shawls, paisley designs, opium dens, the list goes on – were all predicated upon imperial interactions.<sup>25</sup> Others revealed the ways in which imperial/colonial elements were inherent in the political, intellectual, social, and economic developments of modern Britain, from consumerism and industrialization, to liberalism, governmentality, and ideas about gender, race, and sexuality.<sup>26</sup> In other words, we can think of the making of Britain and the making of the British Empire as mutually constitutive developments. Moreover, networks *between* colonies were shown to be as much a part of the process as colony–metropole interaction, rendering the hub–spoke model inadequate for explaining how empires actually worked. A vision of a very mobile and multi-directional British Empire emerged, where goods, people, and ideas flowed back, between, and across colonies and metropole in myriad ways and to myriad effects, and in which there was no clear separation between imperial, colonial, national, and metropolitan developments. Historian Mrinalini Sinha has termed this focus one on “imperial social formation,” and stressed that the realization of the mutually constitutive condition of Britain and empire has brought on the “imperial turn” in the historiography of Britain itself.<sup>27</sup> This new perspective demands that those interested in understanding the history of Britain must also study imperial and colonial histories.

Focus on networks has led to the second model of imperial formation, that of the web, as discussed above. The web or network model accounts for multi-directional flows and influences within an empire, enabling a more complex understanding of imperial social formation. A web model is able to accommodate multiple centers of power and multiple sites of exploitation as well as the ports, stations, and long stretches between them. One can study a

25 James Walvin, *Black Ivory: Slavery in the British Empire* (New York: Wiley, 2001); Elaine Freedgood, *The Ideas in Things: Fugitive Meaning in the Victorian Novel* (University of Chicago Press, 2006).

26 Kathleen Wilson, *A New Imperial History: Culture, Identity and Modernity in Britain and the Empire, 1660–1840* (Cambridge University Press, 2004); Philippa Levine, *Prostitution, Race, and Politics: Policing Venereal Disease in the British Empire* (New York: Routledge, 2003); Catherine Hall, *Civilising Subjects: Metropole and Colony in the English Imagination, 1830–1867* (University of Chicago Press, 2002).

27 Mrinalini Sinha, *Specters of Mother India: The Global Restructuring of an Empire* (Durham, NC: Duke University Press, 2007), pp. 17–26.



web without necessarily privileging, or even including, the study of the metropole.<sup>28</sup>

This concept is not without its own problems, however. Critics have argued that although viewing the British Empire as a web lessens the idea that national development took place in a self-contained hub removed from what was going on in the spokes, it still gives the impression that the British Empire was a separate structure somehow removed from other contexts – continental European and global, in particular.<sup>29</sup> Others have argued that by so carefully de-centering metropolitan power and showing how events in the most peripheral of the peripheries could unsettle the entire system, proponents of the web model have tended to obscure the story of metropolitan exploitation, particularly in terms of political economy.<sup>30</sup> These two critiques speak to the challenges involved in working with the web model. Other analytical directions promise to revise or supplant the web and include the use of an involved “constellation” metaphor, already at play in some conceptualizations of globalization, as a way of incorporating that missing third dimension to study the accumulation of and interplay between networks. Others call for more systematic network analysis, aided by the methodologies of digital history, to reveal unexpected flows and hubs of activity.<sup>31</sup> An increased emphasis on spatial analysis is the way forward according to another body of scholars.<sup>32</sup> Whatever model is in use, it still remains the work of the historian to research and evaluate networks on many different scales in terms of time and space and on many different levels in terms of politics, economy, society, and culture. This is a difficult task for any one scholar and, thus, will likely require historians to do much more collaborative work in the future.

Outside of British history, the imperial turn has also occurred in many other metropolitan-centric historiographies, especially those of the United States, the Netherlands, France, and Germany. One topic of debate in these is the degree to which models and methodologies developed for understanding

28 Tony Ballantyne, *Orientalism and Race: Aryanism in the British Empire* (London: Palgrave, 2002), pp. 1–17.

29 Grant, Levine, and Trentmann, eds., *Beyond Sovereignty*, pp. 6–7.

30 Howe, ed., *New Imperial Histories Reader*, pp. 11–12.

31 Stephen Morillo, *Frameworks of World History: Networks, Hierarchies, Culture*, combined volume (Oxford University Press, 2013), pp. xxiii–xxxii; Steven Topik, Carlos Marichal, and Zephyr Frank, eds., *From Silver to Cocaine: Latin American Commodity Chains and the Building of the World Economy, 1500–2000* (Durham, NC: Duke University Press, 2006), pp. 1–18.

32 Sanna Turoma and Maxim Waldstein, eds., *Empire De/Centered: New Spatial Histories of Russia and the Soviet Union* (New York: Ashgate, 2013).

the British Empire can be used for other empires, European and non-European alike. Does the claim of “mutual constitutiveness” that has proved persuasive for British history hold for the German experience of empire – which came later and unfolded over a shorter period of time?<sup>33</sup> Can we speak of “Western” or European imperialism as a single phenomenon? What is at stake in insisting on the differences between empires and what is gained by thinking past these differences? Burton and Ballantyne, for example, argue that by setting up England as the quintessential modern empire, we get stuck comparing all other histories to the English paradigm, looking for “absolute distinctions,” but only succeeding in setting up English – and by extension American – imperialism as the standard.<sup>34</sup> Soviet imperialism, as Adeeb Khalid argues, developed through different priorities and processes than British, French, and Dutch imperialism, and to pathologize Soviet imperial formation vis-à-vis the “West” is to perpetuate Cold War mentalities and occlude the variety of modernities that have developed in the last 200 years around the world.<sup>35</sup>

The web model works well with what has been another important thread in imperial history, studies of colonial encounters that take into account the pre-existence of important political, economic, and cultural formations prior to the arrival of the colonizer. As Burbank and Cooper have shown, since at least the time of the Mongol Empire in the fourteenth century, and certainly through the Spanish, Ottoman, British, French, and even American empires, the standard imperial *modus operandi* was to attempt to appropriate whatever structures and networks already existed in a given area. Examples of this abound: the Spanish did not so much build an empire in the “New World,” as take over and connect pre-existing Incan and Mexican imperial webs. The British, Dutch, and Portuguese East India Companies appropriated Mughal formations and tapped into already well-developed Indian Ocean exchange networks. Having been conquered by the Mongols, Russian imperialists built on Asian, Middle Eastern, and European techniques of domination. Tipu Sultan’s empire in southern India in the eighteenth century was an ingenious and brutal amalgamation of Ottoman, Mughal, and French practice. Thus, empires in general, and certainly empires after 1750, were built upon

33 Shelley Baranowski, *Nazi Empire* (Cambridge University Press, 2011), pp. 1–8.

34 Ballantyne and Burton, *Empires*, p. 14.

35 Adeeb Khalid, “Backwardness and the quest for civilization: early Soviet Central Asia in comparative perspective,” *Slavic Review* 65:2 (Summer 2006), 231–233. Wesseling patriotically argues that an over-emphasis on the British Empire trivializes Dutch and Portuguese efforts. Wesseling, *European Colonial Empires*, pp. x–xi.

structures, knowledge, and, in many cases, personnel that had been involved in pre-existing networks of exploitation. The systems of colonialism that resulted, then, were hybridized formations that incorporated all kinds of local development. Therefore, the modern colonial world was not so much built on a “pre-colonial” condition as on a world of slightly different sets of imperial networks. Many of these pre-existing forms were translated, circulated, adapted, and reworked in the crucible of imperial social formation. Colonial strategies learned in one context could be applied in another, just as a successful tactic of resistance could travel around and between empires. To imagine that modern European powers, in particular, created imperial webs out of thin air is to fall prey to the myth of European exceptionalism.

Hybridization – in terms of cultural, economic, and political practice as well as the actual mixing of DNA – has been shown to be common in all imperial contexts.<sup>36</sup> The development of curry dishes in British cuisine is one instance of hybridity, and the use of English by South Asians as a uniquely Indian dialect is another.<sup>37</sup> Language is a particularly good topic through which to study hybridity. We can see how the English language developed across the world in the nineteenth century to incorporate words of many different languages of colonized peoples and vice versa, and the same is true of Spanish, French, and other languages. Studying the condition of hybridity within imperial social formation allows us not only to examine mixture and amalgamation, but also to reveal the constant effort that proprietors of an imperial project had to expend to assert meaningful difference between the “colonizer” and the “colonized,” so that networks of exploitation would appear natural, justifiable, and irresistible and thus head off resistance. Hybridity, a fundamental part of imperial/colonial experiences, continually revealed the fictional quality of this division, and thus studying when and how hybridity was deemed inappropriate is crucial for understanding how inequalities were constructed within imperial networks.

### How did resistance matter?

In the late 1950s, Ronald Robinson and John Gallagher set out to write about the “official mind of imperialism.” They endeavored to reveal an administrative model of British imperialism that explained governance in the empire

36 Peter Burke, *Cultural Hybridity* (Cambridge: Polity Press, 2009), pp. 1–12; Stoler, *Carnal Knowledge*, p. 110.

37 Shefali Chandra, *The Sexual Life of English: Languages of Caste and Desire in Colonial India* (Durham, NC: Duke University Press, 2012).

as a whole but especially in regards to British Africa from the 1870s onwards. What they found was an administration that was much more reactionary, fractured, and less focused than previous scholarship had acknowledged: “The so-called imperialism of the late-Victorians began as little more than a defensive reaction to the Irish, the Egyptian and the Transvaal rebellions . . . The paradoxical conduct of Gladstone’s ministry shows that the taking of a new African empire originated in an almost involuntary reaction to African national movements, and not in a stronger will to empire in Britain. The crucial changes which upset the Liberals were taking place in Africa rather than Europe.”<sup>38</sup> While subsequent scholarship has taken issue with specific arguments in Robinson and Gallagher’s work, the basic point that resistance in colonial spaces shaped how empires operated continues to be one of the most important in imperial studies. It has enabled the study of empires as webs where colonies affect developments in the metropole and other colonies, as discussed in the previous sections. It has also demanded that scholars shift their attention away from the actions of a few famous imperialists and look more closely at the nature and long-term effects of resistance throughout the web.

Moments of mass armed rebellion, such as the Boxer Rebellion in China beginning in 1898, or large-scale anti-colonialist political campaigns like the Hind Swaraj movement in India in the first half of the twentieth century, have been seen as obvious examples of resistance to outside rule. The historical significance of these movements has been taken for granted in their local settings, and now scholars are more engaged in the task of assessing the translocal, intra-imperial, and global implications of this resistance; for instance, working to understand how Boer nationalism in the South African War informed Chinese nationalists at the turn of the twentieth century or how the Haitian Revolution inspired resistance in many different colonial settings.<sup>39</sup>

But these classic moments of resistance are not the only ones that shaped how empires worked. In 1985, political scientist James C. Scott published his ideas about everyday resistance or “weapons of the weak.” He argued that resistance to exploitation came in many forms, not simply through armed

38 Ronald Robinson and John Gallagher, with Alice Denny, *Africa and the Victorians: The Official Mind of Imperialism* (London: Macmillan, 1961), p. 161.

39 Rebecca Karl, *Staging the World: Chinese Nationalism at the Turn of the Twentieth Century* (Durham, NC: Duke University Press, 2002), pp. 124–148; David Armitage and Sanjay Subrahmanyam, eds., *The Age of Revolutions in Global Context, c. 1760–1840* (London: Palgrave, 2010); David Omissi and Andrew Thompson, eds., *The Impact of the South African War* (London: Palgrave, 2002).

rebellion or organized political protest.<sup>40</sup> Disgruntled individuals and communities engaged in less spectacular but effective “minor” acts of disobedience, sabotage, evasion, satire, mimicry, and subversion that troubled imperial systems on a daily basis. For example, Mary Prince, an enslaved woman in the Caribbean, described the many ways she troubled the system and sustained her sense of self by running away, establishing family and community connections outside of the purview of her owner, refusing to work because of sickness or maltreatment, feigning ignorance, trying to purchase her own freedom, appealing to other owners and organizations, arguing with her owners, and, ultimately, narrating her life story in support of the abolitionist cause in Britain in the 1820s.<sup>41</sup> She did not take up arms but the ways she negotiated through the system – complying with some tasks, refusing others, pursuing her own agenda – tempered how the imperial networks within which she was entangled operated.

This clues us in to how, for proprietors of empire, the ability to dominate an area or population in physical, military terms was merely one way in which imperial networks were developed and maintained, and perhaps not even the most significant way. Winning a battle and ruling a territory were two different achievements, and conquest was never as complete as the blue or red areas of the map in a video game might indicate. Economic exploitation was at the heart of imperial projects and to deliver the goods – both literally and metaphorically – colonists and colonial administrators had to find ways to gain labor, local knowledge of products and the environment, and access to trade. They also had to avoid armed rebellion. This meant finding ways to maintain imperial projects that did not rely solely on physical brutality and could be effective over the long term. In the face of many different tactics of quotidian resistance, proprietors of empire researched, appropriated, adapted, and created various socio-cultural “technologies of rule” or ways of compelling people into subject positions. These could be subtle or direct, enduring or immediate, deliberate or haphazard, intellectual or emotional. Giordano Nanni has described how observance of the Christian Sabbath in southern Africa in the nineteenth century operated as a technology of rule because it allowed European missionaries to mandate that not only would one day out of seven be reserved for non-work and religious observance but that the other six days would be defined as work days. This,

40 James C. Scott, *Weapons of the Weak: Everyday Forms of Peasant Resistance* (New Haven, CT: Yale University Press, 1985).

41 Moira Ferguson, ed., *The History of Mary Prince, a West Indian Slave, Related by Herself*, rev. edn (Ann Arbor, MI: University of Michigan Press, 2004), pp. 57–125.

he argues, was a way of compelling Xhosa converts into a Eurocentric time-discipline regime. On the other hand, this logic could be turned against missions and deployed as a tactic of resistance: some Xhosa used the Sabbath as a reason never to aid missionaries on Sundays, even in emergency circumstances, and many refused to hear religious proselytizing on other days of the week. This subtle resistance caused some missionaries to rethink their insistence on Sabbath observance and changed the culture of particular missions in the area.<sup>42</sup> This is one example of how new technologies of rule were met with new tactics of resistance, and through these constant contestations, colonial culture developed. This ever more-elaborate system of power play and resistance meant that imperial webs were always transforming, their proprietors attempting to assert a hegemony that was subverted before it could be fully realized or, as Antonio Gramsci has phrased it, was always an “unfinished business.”<sup>43</sup> Local resistance, consciously intended or otherwise, conditioned the development of the system as much as any administrative impetus, and, therefore, was just as historically significant. Therefore, if we want to study how empire worked, we have to study the everyday negotiations that millions and millions of people engaged in for patterns of compliance, subversion, and controversy.

By emphasizing the negotiated quality of encounters within the webs of empire, we also circumvent the intellectual dead-end that comes with the impulse to divide up people and their histories into “resistor” and “collaborator” categories. Imperial social formation was far too complex for that. Mary Prince is but one example of someone who resisted and complied at different times, for different ends; another would be Mahatma Gandhi. As one of the major leaders of the Indian independence movement, Gandhi is popularly seen as a quintessential resistor of empire. But he also wrote that Britain was justified in colonizing southern Africa because Africans needed to be raised to a higher level of civilization.<sup>44</sup> Individuals and their histories were more complicated than dualistic categories like resistor versus collaborator or colonized versus colonizer allow; studying how people adopted different positions at different times and, for their own reasons, selectively engaged with the system, instead of trying to pin them into fixed identities, allows us to write more accurate histories of imperial/colonial operations.

42 Giordano Nanni, *The Colonisation of Time: Ritual, Routine and Resistance in the British Empire* (Manchester University Press, 2012), pp. 148–181.

43 Stoler, *Carnal Knowledge*, pp. 18, 150.

44 Banerjee, *Becoming Imperial Citizens*, pp. 75–110.

While thinking about “weapons of the weak” has allowed us to broaden our scope of what resistance was in a colonial space, we must also realize that not everything that happened within colonial space happened because of colonialism, though it may have affected it. Many power structures and struggles that animated colonial societies pre-dated modern colonialism, and people involved in them may not have been concerned with the vicissitudes of imperial/colonial authority.<sup>45</sup> Imperial/colonial authorities may not have been particularly concerned with the day-to-day workings of colonial populations either, as, for example, Alice Conklin argues was the case with French colonialism in West Africa in the late nineteenth century. While paying lip service to a civilizing mission, French authorities put little effort into regulating daily life.<sup>46</sup> As people moved throughout Africa in the nineteenth and early twentieth centuries, following traditional labor migration patterns or developing new ones, they could find themselves subject to several different empires – Spanish, British, German, Portuguese, Belgian, French, Italian, Zulu, Asanti, and so on – and it is a question as to if, when, and how this subjecthood mattered to them. Experiences of colonialism also varied with class, gender, skin color, age, marriage status, and a whole host of other socio-cultural factors, so, again, there was no universal experience of colonialism about which we can generalize.

Some proprietors of imperialism worked to be interventionist, to various levels of effectiveness. As a critical mass of post-colonialist scholarship has shown, the project to label people and, in doing so, fix them into specific subject positions within the imperial web was one of the key technologies of rule through which imperial/colonial administrators created and exercised authority.<sup>47</sup> Socio-cultural categories of difference based on religion, caste, gender, sexuality, race, ethnicity, community, language group, or even food preference, oftentimes already developed in local societies prior to colonization, became reasons for defining individuals and groups as part of either the “colonized” or “colonizers.” For example, in the Spanish and Ottoman empires, religious difference was seen as a justification for enslavement. In the Spanish case, complications arose when enslaved aboriginal and African individuals converted to Christianity, thus negating one of the categories of

45 Frederick Cooper, *Colonialism in Question: Theory, Knowledge, History* (Berkeley, CA: University of California Press, 2005), p. 16.

46 Alice Conklin, *A Mission to Civilize: The Republican Idea of Empire in France and West Africa, 1895–1930* (Stanford University Press, 1997).

47 Bernard S. Cohn, *Colonialism and Its Forms of Knowledge: The British in India* (Princeton University Press, 1996), pp. 3–5.

difference between colonized and colonizer. A few owners freed their slaves when they converted, but the majority of slave-owners, colonial administrators, and church officials justified continued enslavement based upon other categories – ideas about race, gender, and levels of civilization, for example. In the Ottoman case, Christian boys were enslaved by the Ottoman emperor to be brought up as *janissaries*, or elite imperial guards. While technically slaves, janissaries also enjoyed a relatively privileged status within Ottoman society, often receiving much material wealth and having a degree of political agency through their decisions to protect, or not protect, the emperor. Some of them converted to Islam, and this sometimes brought legal freedom, though not always. Some launched coups against the emperor and sometimes these coups were successful.<sup>48</sup> Their privileges even while still slaves blurred the lines between colonizer and colonized, and their situation is an example of the ways in which different categories of difference complicated one another, allowing space for individuals to work with, against, and around the system.

In order to write a truly critical history of the imperial/colonial past, historians must identify how categories of difference and other technologies of rule were asserted and subverted in imperial networks, eschew imperial socio-cultural hierarchies in their own writing, and appreciate how many forms of resistance and negotiation conditioned the system. All of this is far easier said than done. The primary challenge in writing this history is to find sources. Massive rebellions and overt political challenges tended to produce more written commentary than instances of everyday resistance and the intimate workings of cultural imperialism. Moreover, imperialism was often a clash between cultures of different languages, written expressions, oral traditions, and concepts of time and history. In this, the historical archive itself became caught up in power struggles as imperial/colonial authorities sought to further imperialism by collecting information, records, and artifacts that could be useful to their project and destroying that which they deemed useless or subversive.

Perhaps the most famous example of this is the burning of aboriginal texts by European missionaries who, in the logic of the Spanish Inquisition, saw Mesoamerican sources as sacrilegious threats to their power. While this was undeniably a destruction of indigenous “voices” in the colonial archive, some have argued that we still have access to the “colonized” point of view in sources such as the Florentine Codex, a sixteenth-century ethnography undertaken by

48 Burbank and Cooper, *Empires in World History*, pp. 132, 138–139.



the Franciscan Bernardino de Sahagún. Sahagún relied on Nahua informants to generate over two thousand pages of text and illustrations regarding Aztec society and belief. Sociologist Rebecca Overmyer-Velázquez, however, has shown that the Codex is a deeply problematic source if we wish to gain unfettered access to information about pre-colonial society, and the idea that there was only one colonized (or colonizer) point of view is naive at best. She argues that Sahagún's informants were not disinterested parties eager to tell their stories but people with their own agendas engaging with Sahagún for their own reasons. They were adolescent boys who had learned Spanish, converted to Christianity, and were under the authority of Sahagún. It was in their best interests to convey some bits of information and leave out others, to, as Overmyer-Velázquez suggests, paint Nahua society as patriarchal in ways similar to how they understood European society to be. The Codex does not incorporate any other Nahua points of view other than those of these boys.<sup>49</sup>

Post-colonial scholar Gayatri Spivak finds a similar problem of unequal voice in the colonial archive in her attempt to find information about the Rani of Sirmur, an Indian widow who ruled Sirmur as regent to her son Fateh Parkash and clashed with British authorities in the early nineteenth century. The archive contains very little about the Rani, not even a record of her full name, and nothing of her point of view, but lots of information about her husband, son, and the British men who dealt with her. If this Indian woman of privilege who played a major role in local politics was not even recorded, it is naive to imagine that the vast majority of people and quotidian events of imperial/colonial history are adequately represented.<sup>50</sup> As historians, if we merely reflect the priorities of the colonial archive in our writing and disregard the stark inequalities of representation the archive contains, we run the risk of renewing an imperial project that began with the creation of the colonial archive in the first place.

The question remains: How can we write the history of resistance to and negotiation within imperial networks with only imperial/colonial archives at our disposal? In response, many have sought sources outside of the traditional written archive, including oral histories and testimony, material culture such as pottery and quilts, art work, music, dance, architecture,

49 Rebecca Overmyer-Velázquez, "Christian morality in New Spain: the Nahua women in the Franciscan imaginary," in Ballantyne and Burton, eds., *Bodies in Contact*, pp. 67–82.

50 Gayatri C. Spivak, "The Rani of Sirmur: an essay in reading the archives," *History and Theory* 24:3 (October 1985), 247–272.

photographs, film, artifacts, and even body tattoos.<sup>51</sup> Just like written sources, these other types of primary sources present their own challenges and limitations in regards to the kinds of information they convey and whose point of view they represent. We have also developed methodologies for “reading against the grain” of traditional sources for imperial history, and in this, cultural scholars, especially those concerned with how people within imperial networks thought about gender, race, and sexuality, have taken the lead. If the cultural project of colonial authorities was to make the difference between colonizers and colonized seem obvious and inarguable, thus justifying imperial rule, it follows that if we study moments when the markers of difference were unclear, controversial, or forgotten, we can gain insight into the everyday workings of empire. In other words, we can find evidence of resistance, compliance, and negotiation by studying how these cultural categories operated within imperial networks.

In the last two decades of research in this vein, scholars have found that discourse about race, class, gender, and sexuality could be made to work in symbiotic ways to mark difference between colonizers and the colonized, but just as easily could be shown to undermine this difference, rendering the cultural constructions of imperialism precarious and in need of constant repair. For example, proprietors of European empires continually produced writing that associated masculinity with strength, enlightenment, adulthood, morality, restraint, and “colonizer” identity. In order to justify colonization, they associated the colonized with the opposite of these traits, deeming the colonized to be weak, feminine, and childlike. In terms of imperial social formation, this process simultaneously promoted patriarchal constructions of gender in Europe while weaving these gendered ideals into imperial projects abroad. Maintaining a “proper” performance of European masculinity – and what exactly constituted a proper performance changed over time – was, thus, a key element of a colonial bureaucrat’s duty. If he were seen in a position of weakness, of emasculation, it followed that the colonial edifice was weak. This was the challenge at the heart of George Orwell’s essay on “Shooting an elephant,” wherein a colonial official in Sri Lanka (Ceylon) in the early twentieth century is compelled to shoot an unruly elephant against his personal wishes in order to maintain the authority of his position and stave off open rebellion.<sup>52</sup>

51 Heidi Gengenbach, “Tattooed secrets: women’s history in Magude District, Southern Mozambique,” in Ballantyne and Burton, eds., *Bodies in Contact*, pp. 253–273.

52 James H. Warren, “Contesting colonial masculinity/constituting imperial authority: Ceylon in mid-nineteenth-century British public debate,” *New Zealand Journal of Asian Studies* 6:2 (December 2004), 39–62.

European women who were left in positions of colonial authority when their husbands died or traveled were also caught up in the logic of this gendered and racialized performance and needed to somehow present themselves as proper women and colonizers. If colonial authority rested upon elements of European patriarchy, for example a European man's ability to control and protect the body of "his" wife or daughters, then it followed that moments when those bodies were not under his control, either through women asserting control over what to do with their own bodies or through another's violent intervention, had the potential to disrupt the status quo of colonialism. Thus, the policing of European women's bodies in colonial spaces became very much a part of the imperial project, particularly in the nineteenth century as racism in European imperial webs became more pronounced. Many thinkers have explored how ideas about rape and the imagined need to protect the bodies of white women from seemingly hypersexualized non-white males functioned as fundamental tropes of Western colonialism, weaving together European patriarchy with racial hierarchy and assumptions about sexuality. In the wake of the Indian Rebellion of 1857–1858 and with only imagined evidence of sexual violence, British popular culture was riddled with fictional descriptions of white women being raped and brutalized by Indian rebels, this violence being understood as a powerful attack on British rule. Nancy Paxton and Jenny Sharpe have shown that not only did this predominant characterization of rebellion reveal the gendered and racialized dimensions of British imperialism but actually contributed to the inculcation and hardening of racist ideology in Britain and across the empire.<sup>53</sup>

Consensual and non-consensual sexual activity between white women "colonizers" and non-white males of the "colonized" could be seen to threaten the imperial project by undercutting European patriarchy, on one level, but also by troubling racial hierarchies that placed a premium on the colonizer being associated with "whiteness" and the trappings of white privilege. Consensual and non-consensual sex between white male "colonizers" and non-white female members of the colonized tended to be seen by imperialists as normal and necessary for the maintenance of the imperial order. As ideas about whiteness and white supremacy hardened, children of interracial pairings, also known as members of the *métissage*, could blur the

53 See Jenny Sharpe, *Allegories of Empire: The Figure of Woman in the Colonial Text* (Minneapolis, MN: University of Minnesota, 1993) and Nancy Paxton, *Writing Under the Raj: Gender, Race and Rape in the British Colonial Imagination, 1830–1947* (New Brunswick, NJ: Rutgers University Press, 1999).

lines between colonizer and colonized by their very being. They were often seen with suspicion in imperial discourse, cast as children of two worlds, able to move between categories but troubled by conflicting loyalties and ultimately untrustworthy. While hybridity, cultural and biological, was a fact of life in colonial spaces, imperialist energy was spent denying this hybridity or at least finding ways to marginalize or disempower those who troubled the lines between colonizer and colonized.<sup>54</sup>

The nebula of cultural claims alive in imperial social formation was not always straightforward for anyone involved. Contradictions in the system were manifold and when they came to the forefront of colonial society, demanded immediate attention. For example, in the late nineteenth century, mining opportunities compelled tens of thousands of migrants to rush to the gold and diamond fields of southern Africa. Many of these migrants were from Eastern and southern Europe, were poverty-stricken, and had few professional or mining skills. In terms of skin color, many could claim they were “white.” In the late 1880s, they entered a racialized colonial space where “unskilled” mine labor was constructed to be the domain of black male Africans and skilled mining work the domain of white males. Unable to get work, these newcomer “poor whites” were the subject of intense debate within colonial society because they challenged the logic of white privilege by being both white *and* impoverished. Commentators, building on debates about racism that were echoing around the globe at the time, began to write diatribes about the racial shortcomings of many migrants. They argued that southern European or Jewish backgrounds meant most newcomers were not quite white, complicating an already complicated racialized matrix of colonial power and allowing us insight into the promulgation of ideas within the imperial web.<sup>55</sup>

In terms of studying resistance, because colonial discourse built upon pre-existing ideas, it was not always easy for contemporary actors to identify what was a decidedly imperialist or anti-imperialist position. For example, in 1828 the East India Company, reversing its mandate not to get involved in religious affairs in India, outlawed *sati*. *Sati* was a ritual observed by only a minority of high caste Hindu families. It demanded that upon the death of her husband, a widow would sacrifice herself on the funeral pyre. Though rare, *satis* dominated the imaginations of European travelogue writers and

54 Stoler, *Carnal Knowledge*, pp. 79–80.

55 Joseph Sherman, “Serving the natives: whiteness as the price of hospitality in South African Yiddish literature,” *Journal of Southern African Studies* 26:3 (2000), 505–521.

readers. In India, many considered the practice to be antiquated and largely irrelevant. Servants of the East India Company, however, thought that by outlawing the practice they could publicize the Company as a protector of Indian women and a modernizing force in India – an important exercise in public relations given that the rise of “free trade” discourse in Britain tended to paint the EIC as itself antiquated. By making the imperial project about sati and vice versa, the EIC created a storm of controversy surrounding the Company’s decision to intervene in religious matters in India, the question of what was traditional Hindu practice, who should be responsible for protecting Indian women’s bodies, and how, by choosing to engage or not engage in sati, people affiliated themselves with British colonialism. For some Hindu thinkers, sati became a technology of resistance to the Company; for others, the effort to abolish sati was a reason to welcome Company governance. As Lata Mani has pointed out, it does not appear that anyone determinedly sought out the opinions of the widows themselves, while many claimed to be acting on their behalf. The effect of the law was to increase the number of satis performed, although some argue this increase in numbers is more the result of new bureaucratic interest.<sup>56</sup> In any case, the bodies of Hindu widows became a major battleground for the imposition of British colonialism in India.

Ways in which imperial/colonial battles were fought through ideas about gender, race, and sexuality can be generally subsumed under the theme of controlling the body in imperial webs. The philosopher Michel Foucault understood the body to be a fundamental site in claims for power. He termed this “bio-power,” and argued, “the body is . . . directly involved in a political field; power relations have an immediate hold upon it; they invest it, mark it, train it, torture it, force it to carry out tasks, to perform ceremonies, to emit signs.”<sup>57</sup> If we want to study the development of unequal power relationships we can look at how, for example, proprietors of legal systems or cultural activities such as gossip regulated people’s bodies by delineating who could wear what, have sex with whom, work at which job, and live in which space. Through tracing the history of the body we can discover how empires worked in subtle and not-so-subtle ways to deliver a constant supply of labor for industry, bureaucracy, and the military while attempting to minimize resistance. The body is only one theme that cultural historians have

56 Lata Mani, *Contentious Traditions: The Debate on Sati in Colonial India* (Berkeley, CA: University of California Press, 1998).

57 Michel Foucault, *Discipline and Punish: The Birth of the Prison* (London: Vintage, 1977), pp. 24–25.

applied to the problems of working with the colonial archive and studying how resistance and local agency animated imperial webs. Another productive theme has been mobility – crucial for understanding imperial networks because it was the goal of any empire to facilitate the movement of certain goods, people, and ideas while limiting the movement of others. We can also study how empires regulated space, concepts of time, consumer culture, and communication structures.<sup>58</sup> The goal is always the same: to gain insight into how people caught up in imperial webs negotiated their way through the system and in doing so manifested the complexities of imperialism on a daily basis.

### How was modern imperialism different from earlier efforts?

Discussing the differences between imperialism before and after 1750 is tricky for two reasons. The first is the pervasive Eurocentrism embedded in the concepts of modernity and modern imperialism. All too often modernity is ascribed to only Western developments, and modern imperialism is collapsed down into European imperialism. In this mode of thinking, European empires played an exceptional role in history as the deliverers of global modernity, exporting uniquely Western modes of production, politics, and mores to the global “Rest.” This story is told by scholars who view this as a progressive transformation bringing industrialization and liberalism, but also by those who see this as a devastating turn, bringing environmental degradation, economic exploitation, and colonial violence.<sup>59</sup> Not only does this emplotment breathe new life into the outmoded hub-and-spoke model of empire, but it also accepts, uncritically, European Enlightenment thinkers at their word. Post-colonial scholars such as Edward Said, author of the highly influential book *Orientalism*, have found that European thinkers and writers in the eighteenth century were obsessed with constructing themselves as enlightened, progressive, modern, and Western. They wrote histories that underlined the virtues of Western modernity in contrast to a host of “Others” stereotyped in their historical imaginations: “Orientals” who were marked by Eastern traditionalism, stagnation, and ahistoricism; Africans who inhabited a

58 See, for example, Ballantyne and Burton, eds., *Bodies in Contact*; Tony Ballantyne and Antoinette Burton, eds., *Moving Subjects: Gender, Mobility, and Intimacy in an Age of Global Empire* (Champaign, IL: University of Illinois Press, 2009).

59 Ferguson, *Empire*; Paul Gilroy, *The Black Atlantic: Modernity and Double Consciousness* (London: Verso, 1993).

“Dark Continent” and were mired in secret, dangerous, and primitive traditions; indigenous peoples in the Americas and Australasia, who were child-like, diseased, and savage; medieval Europeans, who were irrational and backwards, living in the “Dark Ages” in which religion and superstition predominated. Many Enlightenment thinkers justified European imperialism by arguing that Europe was bringing the light of modernity to these peoples and places of darkness, and their writings came to influence later imperialists. This same Enlightenment thought was instrumental in the creation of today’s academic discipline of history, and in the establishment of archives that house the sources from which we gain insight into the past, shaping what was preserved and making it difficult to avoid an over-emphasis on European actions.<sup>60</sup> In fact, Said himself has been criticized for what could be seen as a type of Eurocentrism, in that he concentrated on the negative views European writers expressed about others, and ignored the great admiration shown by many “Orientalists” – as the academic discipline was then known – for India and China. We are still in the process of figuring out how to achieve a better balance in the study of modern imperialism, one that takes all global actors into account.

The second complication in the study of imperialism after 1750 is one that occurs in historical writing in general, but particularly affects the study of anything “modern”: what quality and quantity of change is significant enough to necessitate the creation of a new category? Was modern imperialism different than what came before in degree or in kind?

There is much that speaks to the continuity of imperialism over time, particularly when we understand how empires built upon previous formations. Istanbul, Mexico City, and Moscow were made and remade as seats of empire a dozen times between them. What is most significant about imperialism in the last 300 years, however, is the enlarged scale, acceleration, and impact of imperial activities across the world. Historians have typically described this quickened pace of change and global integration as the product of multiple revolutions in agriculture, industry, finance, work, consumer culture, communications, bureaucracy, military organization, belief, and, of course, politics that delivered the world into the modern era. “Revolution” is a somewhat misleading term, here, because all of these developments unfolded slowly over centuries, inhered multiple centers of innovation, and occurred unevenly and differently around the world. There was no singular

60 Edward Said, *Orientalism* (London: Vintage, 1978); Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Princeton University Press, 2000).

industrial revolution or a universal definition of modernity that can describe all. Instead, the concept of “multiple modernities” has gained purchase in some fields as a way of appreciating the spectrum of experience we can study under the rubric of modernity.<sup>61</sup>

At any length, empires were integral to these modern transformations and go a long way in explaining difference and unevenness in development across space and time in the history of globalization. The British Empire is an instructive example because the Empire created modern Britain as we know it and modernity transformed the Empire. Industrialization and the development of Western political economy happened, as Burbank and Cooper put it, under imperial skies. Mass production, division of labor, and the decimation of the “moral economy” were elements of so-called proto-industrial societies in India, China, and Mesoamerica in the early modern period. India, in particular, was a textile manufacturing center in terms of the world economy. European empires appropriated these techniques and deployed them in territories they were able to control in the Americas, where disease epidemics created or exacerbated instability within aboriginal societies. Relying at first on enslaved indigenous labor, proprietors of plantations and mining operations in the “New World” turned to importations of slave laborers from Africa to dramatically increase their output of raw materials, silver, gold, copper, tobacco, sugar, cotton, and coffee. At least 12 million men, women, and children were forcibly moved to the Americas from Africa to be used as slave labor, an unprecedented mass migration. In Britain, conditions were amenable to the mass production of cotton textile, given an influx of relatively cheap raw material from the Americas and models for textile production available in India. This, combined with an abundance of coal and some key technological breakthroughs, transformed Britain into an industrialized textile manufacturing center of unprecedented output. As the East India Company gained more power in India, it was able to severely hamper the Indian textile industry to ensure British supremacy in that market. Slave-trading, cotton, and “nabob” interests became major voices in British government just as the effects of industrialization manifested themselves in terms of demands for both factory owner and worker rights. The French, Haitian, and American revolutions, major uprisings in England, Ireland, Canada, and Jamaica, and severe unrest in India ushered in an era of reform in Britain, creating new poor laws and mechanisms for oversight of East

61 C. A. Bayly, *The Birth of the Modern World: 1780–1914* (Oxford: Blackwell, 2004).



India Company governance, increases in both colonial and “home” bureaucratic structures, and illegalizing British involvement in the slave trade and slavery throughout the formal Empire. While instituting what we might characterize as reforms designed to pre-empt further armed rebellion, these reforms also demanded an increased level of government involvement with populations throughout the imperial web. Postmodern scholars have termed this the rise of governmentality – an increase in government surveillance and regulation of everyday life, in Britain and across the Empire. Further technological innovation aided the growth of this bureaucratic apparatus by expanding communications networks via railroads, steamships, telegraph cables, airplanes, and radio waves. As the government expanded and developed new and better networks to fund its activities, so too did the military, a physical technology of rule that accompanied socio-cultural and technical means of regulating populations. Advancements in military technology rendered warfare ever more brutal and destructive, as the history of the twentieth century readily shows. The scale and pace of these changes, the numbers involved – of displaced people and goods – and the degree to which imperial webs became a part of everyday life in this era speak to how the stakes of imperialism were raised very dramatically in the last 200 years, and the British Empire is just one example. We can speak of countless other revolutions, waylaid revolutions (such as in the case of India, described above), or forced uneven developments that were caught up in other exploitative imperial networks.

The question remains: where does imperialism end and globalization begin? If we define globalization as the ongoing global integration of market economies, communications networks, culture, and political operations, then we can observe globalization happening over millennia of human development, and any one given empire or constellation of imperial networks as merely pieces in that process.<sup>62</sup> Some writers like John Darwin and Niall Ferguson imagine global integration to have been largely created by British power in the nineteenth century and taken over and furthered by American power in the twentieth century. For them, imperialism delivered globalization, and the inequalities alive in twentieth- and twenty-first-century internationalism and global capitalism were and are extensions of this.<sup>63</sup> Post-Marxists such as Antonio Negri and Michael Hardt have added to this vision, arguing that by fostering global connectivity (albeit in piecemeal ways) the

62 A. G. Hopkins, ed., *Globalization in World History* (New York: Random House, 2002), pp. 1–5.

63 Ferguson, *Empire*; Darwin, *Empire Project*.

nation-state-based empires of the past 300 years have set the stage for the coming of Empire (upper case), a centerless global imperialism that will harness the latest military and digital technology to be post-national, inescapable, and absolute. Inspired by Marx, they see this stage of global Empire giving way to *the* global revolution. For them, globalization will deliver a new and total form of imperialism (and eventual liberation).<sup>64</sup>

A less deterministic approach is necessary. Much cultural, economic, and political innovation took place in the interstices and movement *between* empires and we must be careful not to imagine that all developments within an empire were dictated by its proprietors. As Burton and Ballantyne argue, “empires have not simply been carriers or enablers of global processes, they have in turn spawned new hybrid forms of economic activity, political practice, and cultural performance that take on lives of their own – in part because of the ways colonized peoples and cultures have acted on or resisted imperial political and social forms.”<sup>65</sup> To properly study the relationship between globalization and imperialism, and appreciate both the power inequalities alive in globalized networks and the potential for innovation, we must continue to delve into the complexities of imperial formations and study the moments when imperial business was unfinished, incomplete, resisted, circumvented, and made irrelevant. It remains the work of historians to find new ways of engaging with imperial/colonial archives to give us insight into these moments, and to continually remind us how unscripted were past as well as present and future engagements with imperialism.

### Further reading

- Armitage, David, and Sanjay Subrahmanyam, eds. *The Age of Revolutions in Global Context*. London: Palgrave, 2010.
- Ballantyne, Tony. *Orientalism and Race: Aryanism in the British Empire*. London: Palgrave, 2002.
- Ballantyne, Tony, and Antoinette Burton. *Empires and the Reach of the Global, 1870–1945*. Cambridge, MA: Belknap Press of Harvard University Press, 2012.
- Ballantyne, Tony, and Antoinette Burton, eds. *Bodies in Contact: Rethinking Colonial Encounters in World History*. Durham, NC: Duke University Press, 2005.
- Moving Subjects: Gender, Mobility, and Intimacy in an Age of Global Empire*. Champaign, IL: University of Illinois Press, 2009.

64 Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000).

65 Burton and Ballantyne, eds., *Bodies in Contact*, p. 4.

- Banerjee, Sukanya. *Becoming Imperial Citizens: Indians in the Late-Victorian Empire*. Durham, NC: Duke University Press, 2010.
- Bang, Peter Fibiger, and C. A. Bayly, eds. *Tributary Empires in Global History*. London: Palgrave, 2011.
- Baranowski, Shelley. *Nazi Empire: German Colonialism and Imperialism from Bismarck to Hitler*. Cambridge University Press, 2011.
- Bayly, C. A. *The Birth of the Modern World, 1780–1914*. Oxford: Blackwell, 2004.
- Burbank, Jane, and Frederick Cooper. *Empires in World History: Power and the Politics of Difference*. Princeton University Press, 2010.
- Cain, P. J., and A. G. Hopkins. *British Imperialism: 1688–2000*, 2nd edn. New York: Routledge, 2000.
- Césaire, Aimé. *Discourse on Colonialism*. New York: Monthly Review Press, 2000.
- Chakrabarty, Dipesh. *Provincializing Europe: Postcolonial Thought and Historical Difference*. Princeton University Press, 2000.
- Chandra, Shefali. *The Sexual Life of English: Languages of Caste and Desire in Colonial India*. Durham, NC: Duke University Press, 2012.
- Cohn, Bernard S. *Colonialism and Its Forms of Knowledge: The British in India*. Princeton University Press, 1996.
- Conklin, Alice. *A Mission to Civilize: The Republican Idea of Empire in France and West Africa, 1895–1930*. Stanford University Press, 1997.
- Conklin, Alice, and Ian Fletcher, eds. *European Imperialism, 1830–1930*. New York: Houghton Mifflin, 1999.
- Cooper, Frederick. *Colonialism in Question: Theory, Knowledge, History*. Berkeley, CA: University of California Press, 2005.
- Darwin, John. *After Tamerlane: the Rise and Fall of Global Empires, 1400–2000*. London: Penguin, 2007.
- The Empire Project: The Rise and Fall of the British World System, 1830–1970*. Cambridge University Press, 2009.
- Duane, Anna Mae. *Suffering Childhood in Early America: Violence, Race, and the Making of the Child Victim*. Athens, GA: University of Georgia Press, 2010.
- Fanon, Frantz. *The Wretched of the Earth*. New York: Grove, 1963.
- Ferguson, Moira, ed. *The History of Mary Prince*, rev. edn. Ann Arbor, MI: University of Michigan Press, 2004.
- Ferguson, Niall. *Empire: The Rise and Demise of the British World Order and the Lessons for Global Power*. New York: Basic Books, 2002.
- Freedgood, Elaine. *The Ideas in Things: Fugitive Meaning in the Victorian Novel*. Chicago University Press, 2010.
- Gilroy, Paul. *The Black Atlantic: Modernity and Double Consciousness*. London: Verso, 1993.
- Grant, Kevin, Philippa Levine, and Frank Trentmann, eds. *Beyond Sovereignty: Britain, Empire, and Transnationalism, c. 1880–1950*. London: Palgrave, 2007.
- Hall, Catherine, ed. *Civilising Subjects: Metropole and Colony in the English Imagination, 1830–1867*. Chicago University Press, 2002.
- Cultures of Empire: A Reader*. New York: Routledge, 2000.
- Hardt, Michael, and Antonio Negri. *Empire*. Cambridge, MA: Harvard University Press, 2000.
- Hobson, J. A. *Imperialism*. Cambridge University Press, 1902.

- Hopkins, A. G., ed. *Globalization in World History*. New York: Random House, 2002.
- Howe, Stephen, ed. *The New Imperial Histories Reader*. London: Routledge, 2009.
- James, C. L. R. *The Black Jacobins*. London: Penguin, 2001.
- Joseph, Gilbert Michael, Catherine Legrand, and Ricardo D. Salvatore, eds. *Close Encounters of Empire: Writing the Cultural History of US–Latin American Relations*. Durham, NC: Duke University Press, 1998.
- Kapell, Matthew W., and Andrew B. R. Elliott, eds. *Playing With the Past: Digital Games and the Simulation of History*. New York: Bloomsbury, 2013.
- Karl, Rebecca. *Staging the World: Chinese Nationalism at the Turn of the Twentieth Century*. Durham, NC: Duke University Press, 2002.
- Khalid, Adeeb. "Backwardness and the quest for civilization: early Soviet Central Asia in comparative perspective." *Slavic Review* 65:2 (Summer 2006), 231–251.
- Khoury, Dina Rizk, and Dane K. Kennedy. "Comparing empires: the Ottoman domains and the British Raj in the long nineteenth century." *Comparative Studies of South Asia, Africa and the Middle East* 27:2 (2007), 233–244.
- Lenin, V. I. *Imperialism, the Highest Stage of Capitalism*. New York: International Publishers, 1939.
- Levine, Philippa. *Prostitution, Race, and Politics: Policing Venereal Disease in the British Empire*. New York: Routledge, 2003.
- Mani, Lata. *Contentious Traditions: The Debate on Sati in Colonial India*. Berkeley, CA: University of California Press, 1998.
- Morillo, Stephen. *Frameworks of World History: Networks, Hierarchies, Culture*. Combined Volume. Oxford University Press, 2013.
- Nanni, Giordano. *The Colonisation of Time: Ritual, Routine and Resistance in the British Empire*. Manchester University Press, 2012.
- Omissi, David, and Andrew Thompson, eds. *The Impact of the South African War*. London: Palgrave, 2002.
- Paxton, Nancy. *Writing Under the Raj: Gender, Race, and Rape in the British Colonial Imagination, 1830–1947*. New Brunswick, NJ: Rutgers University Press, 1999.
- Robinson, Ronald, and John Gallagher, with Alice Denny. *Africa and the Victorians: The Official Mind of Imperialism*. London: Macmillan, 1961.
- Said, Edward. *Orientalism*. London: Vintage, 1978.
- Scott, James C. *Weapons of the Weak*. New Haven, CT: Yale University Press, 1985.
- Sharpe, Jenny. *Allegories of Empire: The Figure of Woman in the Colonial Text*. Minneapolis, MN: University of Minnesota Press, 1993.
- Sherman, Joseph. "Serving the natives: whiteness as the price of hospitality in South African Yiddish literature." *Journal of Southern African Studies* 26:3 (2000), 505–521.
- Sherwood, Marika. *After Abolition: Britain and the Slave Trade Since 1807*. New York: I. B. Tauris, 2007.
- Sinha, Mrinalini. *Specters of Mother India: The Global Restructuring of an Empire*. Durham, NC: Duke University Press, 2007.
- Spivak, Gayatri C. "The Rani of Sirmur: an essay in reading the archives." *History and Theory* 24:3 (1985), 247–272.
- Stoler, Ann L. *Carnal Knowledge and Imperial Power: Race and the Intimate in Colonial Rule*. Berkeley, CA: University of California Press, 2002.

- Tagliacozzo, Eric, and Wen-Chin Chang, eds. *Chinese Circulations: Capital, Commodities, and Networks in Southeast Asia*. Durham, NC: Duke University Press, 2011.
- Topik, Steven, Carlos Marichal, and Zephyr Frank, eds. *From Silver to Cocaine: Latin American Commodity Chains and the Building of the World Economy, 1500–2000*. Durham, NC: Duke University Press, 2006.
- Turoma, Sanna, and Maxim Waldstein, eds. *Empire De/Centered: New Spatial Histories of Russia and the Soviet Union*. New York: Ashgate, 2013.
- Walvin, James. *Black Ivory: Slavery in the British Empire*. New York: Wiley, 2001.
- Warren, James H. "Contesting colonial masculinity/constituting imperial authority: Ceylon in mid-nineteenth-century British public debate." *New Zealand Journal of Asian Studies* 6:2 (December 2004), 39–62.
- Wesseling, H. L. *The European Colonial Empires, 1815–1919*. London: Pearson, 2004.
- Williams, Eric. *Capitalism and Slavery*. Chapel Hill, NC: University of North Carolina Press, 1944.
- Wilson, Kathleen. *A New Imperial History: Culture, Identity and Modernity in Britain and the Empire, 1660–1840*. Cambridge University Press, 2004.
- Winks, Robin, ed. *Oxford History of the British Empire*, Vol. 5: *Historiography*. Oxford University Press, 1999.

## Self-strengthening and other political responses to the expansion of European economic and political power

R. BIN WONG

Governments throughout world history have formulated a variety of coercive, material, and ideological tools to facilitate their rule over their subjects. At the same time they have typically labored to defend themselves against those beyond their spheres of control when not themselves seeking to expand at the expense of their neighbors. The lines between neighbor or enemy on one side and subject on the other have often been uneven and shifting. Polities have risen and fallen according to their abilities to establish their strengths over competitors, real and potential, near and far. These general phenomena take on specific forms in different eras as the nineteenth century makes clear.

### Europe's century creates a Western world

The nineteenth century was an era of European industrialization and empire-building. British military power dominated the seas and established formal empire over territories in Asia and Africa, with an even larger informal empire of economic dominance and political influence across the world. Other European powers followed the British to claim formal colonies and spheres of influence in Africa and Asia, in the decades after they had begun to aspire to some of Britain's economic achievements. The Americas had been colonized in earlier centuries, and by 1820 independent countries had been established across much of North and South America. For the United States, the nineteenth century was economically a period of continental expansion, population immigration, and capital imports. As the US economy grew to become the world's largest at the turn of the twentieth century, its government also took American political power into other world regions, subjecting the previously independent Hawai'ian kingdom to its authority and taking the Philippines from the Spanish.

The United States joined European powers to form a contradictory compound of political pressures and political promise to countries in other world regions. Political leaders in Asia and Africa variously succumbed to different kinds of foreign political authority or negotiated understandings with Western political and economic interests, as they scrambled to emulate the practices deemed responsible for European and American wealth and power. Late nineteenth-century international trade between the industrializing West and most other world regions was typically based on an exchange of industrial goods for raw materials and agricultural products. Those few countries where political and economic leaders were both able and desiring to emulate European economic technologies and political practices sometimes withstood the pressures of nineteenth-century colonial expansion. But in general the late nineteenth-century globalization powered by increasing flows of goods, people, and capital created convergence toward modern industrial societies for just a few countries in Western Europe and some of their former white settler colonies. For many others, late nineteenth-century globalization reinforced and extended differences among rich and poor societies and between powerful and weak countries.

The European agenda of state building affected other parts of the world in two obvious ways. First, the traits of nineteenth-century European states supplied many of the norms for what people elsewhere came to recognize as modern states. White settler societies most clearly met those norms, while political elites throughout the world became influenced by European ideologies and institutions by the late nineteenth century, without necessarily succeeding in changing their governments. Second, European states competed with each other for political power and economic influence in other world regions. Much of the world's nineteenth-century political history can be conceived in terms of the uneven spread of the model of European national states within Europe and among former white settler colonies, coupled with the expansion of European political force and economic demands into other world regions. Political failures occurred among those countries unable or unwilling to incorporate best practices developed in the West. Some analysts have emphasized the constraints imposed on countries by Western political and economic power, so that it is less the failures of non-Western states to respond to new models offered by Western power and wealth than it is the success of Western states to impose their power over people in other world regions and subordinate their economies to the needs and desires of Western

capitalism.<sup>1</sup> Whether variations in political responses to Western power and wealth owed more to the limitations of non-Western political leaders or the capacities of Western powers to assert their political and economic interests in other countries, it is clear that Europe's successful state makers and capitalist entrepreneurs were joined by their American counterparts to form the world's elite at the turn of the twentieth century.

This simple sketch of the expansion of Western power across the nineteenth-century world captures some broad outlines of a European political and economic expansion joined by the Americans at the end of the nineteenth century. But it also leaves out key features of Europe's competitive division among rival states of unequal political strength with economies that embraced industrialization with varying degrees of success. The normative cases of national state making are Western European, especially the British and French cases. Moving eastward across Europe we see the late nineteenth-century integration of the German and Italian states, the weakened Polish state, fragile Austro-Hungarian Habsburg Empire and the vast Russian Empire, third largest in population after Qing China and the British Empire. The Germans, Italians, and Portuguese followed the British and French in the late nineteenth-century scramble for colonies in Africa and spheres of influence as well as colonies in Asia. The Austrian (1804–1867) and Austro-Hungarian (1867–1918) empires, along with the Russian Empire, were nineteenth-century neighbors of the Ottoman Empire which had previously controlled territories spanning Europe and Asia; together these empires formed a zone of political competition that included other European countries to the west and the Central Asian region to the east. In this Eurasian region, the examples of Western European wealth and power elicited various attempts to strengthen regimes well aware that their political success depended on the growth of state capacities, and sometimes recognizing that developing industrial capacities made both the state stronger and society more prosperous. The varied political experiences of countries in this Eurasian region generally fell between the extremes of formal colonization, as occurred in much of Africa and Asia, and the maintenance of formal

1. Models of historical change based on European and American experiences formed the bases of different versions of modernization theory beginning in the 1960s, e.g. W. W. Rostow, *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge University Press, 1960). The most influential account of modern historical changes being driven by European capitalist expansion defining the positions and possibilities of others written within the past four decades, is Immanuel Wallerstein, *The Modern World-System*, 4 vols. (Berkeley, CA: University of California Press, 2011), first published in 1974.



independence from Western powers, as was the case for China, Japan, Korea, and Thailand.

In the case of German-speaking areas, the path to unification came under Prussian leadership following its triumph over an Austrian-led movement in 1866. An economic foundation had been laid beginning with reductions of commercial tolls in 1833; like their continental European neighbors to the West, German entrepreneurs borrowed industrial technologies initiated by the British in the early nineteenth century. The creation of a rail network from the late 1830s to the 1870s helped pave the way for the development of large-scale enterprises between 1870 and 1914 in coal mining, steelmaking, chemicals, and heavy engineering.<sup>2</sup> The development of new technologies between 1870 and the eve of the First World War has been called the “second industrial revolution.” Germany was at the forefront of these changes, innovating with large-scale enterprises dominating new markets supported by banks that fostered business mergers and the expansion of the economy. The economic changes supported German political ambitions in the competition for colonial possessions, an extension of the competition among European powers in their own world region.

After the Austrians lost their 1866 war with Prussia, the Habsburg ruling house united with the kingdom of Hungary to form the Austro-Hungarian Empire that lasted until the end of the First World War in 1918, when its territories were separated into the smaller polities of Austria, Hungary, Czechoslovakia, and Yugoslavia with their varying mixes of nationalities, only some of which lasted through the twentieth century. The Austro-Hungarian Empire exemplified the political weaknesses some analysts see in empires more generally, because it offered a poor fit between a royal dynastic regime and the demands of multiple nationalist agendas within its borders.<sup>3</sup> Despite the absence of a strong central state or an especially effective administration in any of the Austro-Hungarian Empire’s parts, there were economic changes on a modest scale that were akin to those taking place in other parts of Europe. There was a transition from craft to factory industry, especially in Czech lands, and the movement of skilled labor from Czech and Austrian lands to Hungary, where modern banking with Austrian capital helped make possible late nineteenth-century developments

2 Richard Tilly, “German industrialization,” in Mikuláš Teich and Roy Porter, eds., *The Industrial Revolution in National Context: Europe and the USA* (Cambridge University Press, 1996), pp. 95–125.

3 Herbert Matis, “Austria: industrialization in a multinational setting,” in Teich and Porter, eds., *Industrial Revolution*, pp. 226–246.

of iron and steel.<sup>4</sup> The Austro-Hungarian Empire was on the margins of the political and economic developments that transformed more fully Western European countries and expanded their political power overseas. Its political energies were largely absorbed, however, in competition not with Western European countries but with the Ottoman Empire, from which it took over territory.

The Ottoman state's late nineteenth-century losses of territory came despite decades of reform efforts to strengthen the government, including in Egypt and Syria. The Tanzimat (Reorganization) reforms between 1839 and 1876 comprised broad efforts ranging from state military and administrative functions to economic and religious activities in society. The state built arsenals and textile factories, encouraged mining and agriculture, and began railroad construction in 1866. These efforts took place amidst increasing European competition over some of its territories.<sup>5</sup> The nineteenth-century loss of much of its southeastern European territories to the Austro-Hungarian Empire was the joint product of its relative military weakness and the émigré elites in Western Europe absorbing the influence of nationalist sensibilities for their native lands. The beginning of limited initial industrialization in Romania and Slovenia in the 1860s, Serbia in the 1880s, and other parts of southeastern Europe in the 1890s was too little and too late to make any positive political difference to the Ottoman regime.<sup>6</sup> Compounding Ottoman political challenges coming from European powers were the limits to state reform created by domestic opposition. Not all the Ottoman Empire's educated elites agreed with the agenda of drawing upon European political and economic practices. Some religious visions of social reform made pastoral and tribal societies into components of new and larger political and social systems. These bottom-up initiatives to change society asserted the central importance of a religious conception of society distinct from the European-inspired vision of a constitutional regime.<sup>7</sup> Ottoman society lacked the economic elites typical of Western societies with constitutional regimes, but did have a religious elite

4 Milan Myška, "The Industrial Revolution: Bohemia, Moravia and Silesia," in Teich and Porter, eds., *Industrial Revolution*, pp. 247–264; Ivan Berend, "Hungary: a semi-successful peripheral industrialization," in Teich and Porter, eds., *Industrial Revolution*, pp. 265–289.

5 Carter Vaughn Findley, "The Tanzimat," in Reşat Kasaba, ed., *The Cambridge History of Turkey*, Vol. 4: *Turkey in the Modern World* (Cambridge University Press, 2008), pp. 11–37.

6 Ljuban Berov, "The industrial revolution and the countries of southeastern Europe in the nineteenth and early twentieth centuries," in Teich and Porter, eds., *Industrial Revolution*, pp. 290–328.

7 Findley, "The Tanzimat."

representing a different repertoire of ideological and institutional strategies for organizing state and society.

Equally ambitious in spatial terms to Ottoman efforts at political reform were imperial projects in Russia which, like the Ottoman Empire, was an empire with territory on either side of a European–Asian geographical divide. The emulation of Western European political and economic practices in Russia went back to the early eighteenth century with Peter the Great's attraction to the West, especially France's monarchy. In the mid-nineteenth century, Russian leaders took German examples of freeing the serfs as an inspiration for legal emancipation of their serfs in 1861, but the act had few positive social and economic consequences. Additional reforms to create local assemblies (*zemstvo*) to organize both taxation and the provision of some local public services were also made in 1864, but these did not last. The state's preference to retain decision-making power at the center subsequently reasserted itself, but was not seriously challenged until 1905 when a constitutional monarchy was established after Russia's humiliating defeat by Japan.<sup>8</sup> However limited the strengths and structural transformation of the late nineteenth-century Russian state may have been, it was able to assert some measure of control over its vast territories that was greater than proved possible for either Ottoman or Habsburg rulers. On the economic front, a conscious political decision to pursue industrialization was made under the leadership of Sergei Witte, first in charge of Russia's railways between 1889 and 1891 and then as Minister of Finance beginning in 1892 for the next eleven years. He led the government in supporting the formation of industrial enterprises in Moscow and St Petersburg through attracting foreign capital and technological expertise. The French invested in engineering projects, the Germans in chemical and electrical industries, while the British capital and expertise went into oil extraction. Technology transfers more generally included telephones from Bell and Ericsson, Singer sewing machines, International Harvester farm machinery, and Siemens for telegraph equipment.<sup>9</sup>

By the end of the nineteenth century, pockets of industry had emerged across much of Europe, sometimes with strong state support, as was the case in Germany and Russia, and in other cases through the efforts of domestic

8 Geoffrey A. Hosking, *The Russian Constitutional Experiment: Government and Duma, 1907–1914* (Cambridge University Press, 1973); James Cracraft, *The Petrine Revolution in Russian Culture* (Cambridge, MA: Harvard University Press, 2004); Terence Emmons and Wayne S. Vucinich, eds., *The Zemstvo in Russia: An Experiment in Local Self-Government* (Cambridge University Press, 1982).

9 Roger Munting, "The Industrial Revolution in Russia," in Teich and Porter, eds., *Industrial Revolution*, pp. 329–349.

and foreign entrepreneurs in varying proportions. West European states developed their administrative capacities and began to expand representative institutions, extending the opportunities for expressing political voice from a very tiny minority of elites to growing numbers of people. Throughout Europe and the Ottoman Empire, the examples of West European power and wealth inspired efforts towards political reform and economic development, because emulation of what were seen as most advanced practices seemed desirable, and at times even necessary, to enable states to compete politically and their economies to generate the wealth they needed to tap in order to succeed. But economic change rarely produced the social base for supporting the kinds of states that political leaders sought to create. Limited industrial change confirmed the importance of large agricultural sectors which were integrated into a larger, more global, economy within which their likely success at emulating Western European economic transformations was even less likely than their creation of strong states able to compete in a political order dominated by Western Europe and the United States.

Leaving Eurasia for the Americas, we find the country most successful in the world at becoming strong and rich, as well as many instances of countries where the development of both administrative capacities by the state and economic wealth by entrepreneurs didn't make much headway until the closing decades of the nineteenth century. The United States, like the Austro-Hungarian, Ottoman, and Russian empires, became a very large polity. Unlike any of them it had abundant natural resources, plenty of fertile but undeveloped land, and a very small population. Moreover, it had a political ideology and institutions derived from specifically British practices as well as West European ones more generally. Thus, the United States had the opportunities, models, and motivations to achieve wealth and power from its establishment in 1776. Even more than Britain it had high-wage labor, a condition that distinguished both from most of the continent of Europe and helps make understandable how and why Britain and then the United States wanted to and were able to develop capital-intensive forms of industrial production that economized on high-wage labor. In the United States, textile industrialization initially occurred in the early nineteenth-century Northeast, as the South was an agricultural economy exporting cotton produced by African slaves and their descendants to Britain.

As territories to the west and south became parts of the United States in the first half of the nineteenth century, the implementation and extension of Alexander Hamilton's vision of federalism helped to create the political and economic infrastructure for growth. Opposed to Hamilton's federalist vision

was Thomas Jefferson, who advocated a bucolic vision of agrarian-based freedom of individuals who exercised their political voice within their states which in turn were less subject to federal rules than the kind of government Hamilton favored. Regarding economic policies, Hamilton formulated the plans for a national Bank of the United States with branches across the country; he proposed tariffs to allow new industries to develop that would have been otherwise unable to compete initially with European imports. These policies not only created a class of businessmen supportive of the national government but also provided inspiration for the German-American economist Friedrich List, whose *Das Nationale System der Politischen Ökonomie* (1841) was translated into English as *The National System of Political Economy*. In this work List supported a version of Hamilton's infant industry protectionist argument as a qualification of absolutely free international trade. List's efforts to promote German economic development supported a logic of political unification that reflects one key strand among the mutual influences of nineteenth-century American and European government policies toward the economy.

The Hamilton–Jefferson debates over the kind of economy desirable for the United States were a prelude to the political disagreements that emerged between the North and South regarding slavery on the eve of the American Civil War. The survival of the republic as a single polity allowed a reorganization and spatial integration of the domestic economy, taking advantage of a growing railroad network and new technologies of production, transport, storage, communication, and power generation. The Midwest became the site for the country's second industrial revolution, producing iron and steel. The labor force here and in other parts of the country was expanded by migration from the post-Civil War South as well as by European immigration. By the end of the nineteenth century, Americans were world leaders in creating new business forms and promoting technological innovations. They joined West European states in exercising their economic strength and political power in other world regions. These conditions largely distinguished the United States from “the other West” in Latin America.<sup>10</sup>

In Latin America, the colonial empires of the British, French, Spanish, and Portuguese were largely dismantled in the half century following the American Revolution of 1776 as the result of successful military challenges to colonial rule. In the American case, the ideology and institutions of a

<sup>10</sup> This term for Latin America comes from Marcello Carmagnani, *The Other West: Latin America from Invasion to Globalization* (Berkeley, CA: University of California Press, 2011).

federal republic were established that drew inspiration from the political principles and practices of the British. Latin American republics were also independent and constitutional. But their governments were saddled with large debts from their wars of independence and their inability to collect taxes as previous colonial regimes had done. In contrast to the US situation, Latin American countries faced strong regional forces with a weak executive typically facing a legislative branch balancing the competing interests of landowners, urban professionals, and businessmen; such governments did not create economic institutions like those put forth in Hamilton's proposals for the United States. But differences in government policies toward the economy were hardly the only distinctions between the US and Latin American countries that contribute to explaining the different economic trajectories of nineteenth-century Latin America and the United States before the late nineteenth century, when Latin American governments began to develop some of the infrastructure needed to have a stronger state and an industrializing economy.<sup>11</sup> Toward the end of the century, larger countries, such as Brazil, developed a banking and financial sector that made it more possible for the countries to borrow funds to build railroads and for foreigners to invest in new industrial enterprises.<sup>12</sup> They also faced challenges repaying their loans with threats of default as well as demands such loans be honored, as a naval blockade of Venezuela in 1901–1902 by the United States, Germany, England, and Italy made visible to all.<sup>13</sup> Latin American experiences with foreign loans to build railroads as well as foreign investment into industrial enterprises, especially Mexico under Porfirio Díaz, parallels in several ways late nineteenth-century developments elsewhere, including within Europe itself, most visibly in Russia.<sup>14</sup>

The uneven expansion of European wealth and power across the Americas, Europe, and the Middle East suggests ways in which the simple picture of “Europe’s century” producing Western hegemony on a global

11 Kenneth Sokoloff and Stanley Engerman, “History lessons: institutions, factor endowments, and paths of development in the New World,” *Journal of Economic Perspectives* 14 (2000), 217–232.

12 Carmagnani, *The Other West*, pp. 85–191; William Summerhill, “Railroads in imperial Brazil, 1854–89,” in John H. Coatsworth and Alan M. Taylor, eds., *Latin America and the World Economy Since 1800* (Cambridge, MA: Harvard University Press, 1998), pp. 383–406.

13 Carmagnani, *The Other West*, p. 197.

14 William Summerhill, “The development of infrastructure,” and Stephen Haber, “The political economy of industrialization,” in Victor Bulmer-Thomas, John H. Coatsworth, and Roberto Cortés Conde, eds., *The Cambridge Economic History of Latin America*, Vol. 2: *The Long Twentieth Century* (Cambridge University Press, 2006), pp. 293–326 and pp. 537–584 respectively.

scale by the late nineteenth century should instead be one of more detailed contrasts and variations among the economic and political fortunes of countries in Europe, the Americas, and the Middle East. Only certain European countries would become involved in the scramble for Africa. Only a few European countries and the United States established colonies in Southeast Asia and also debated how their influence should be exercised in China. Others among them slipped into positions of political and economic subordination, resembling what we can also see happening in much of Africa and parts of Asia. For many European countries, their Western neighbors were objects of emulation as well as subjects of competition; the same held true to a lesser and variable extent through the Middle East. In the Americas, the United States became the world's largest early twentieth-century economy by following and innovating upon Western European practices, while Latin American countries were somewhat like much of Central and Eastern Europe in terms of their lack of wealth and power relative to the United States and Western Europe.

When we turn to Africa, there are clear contrasts between African and European environmental conditions and economic possibilities. Gareth Austin has stressed the poor quality of land and the prevalence of tse-tse fly-borne sleeping sickness, which limited the areas that could use draft animals, as reasons agriculture could not be as productive as was possible in other world regions. Abundant land and poor soil quality led African cultivators to abandon their fields after very few cultivation cycles in favor of forest lands yet to be cleared and cultivated. Agricultural production also lacked much in the way of capital inputs, and labor used per unit of land was also low – it was more rational to spread available labor over more land since land was readily available, but of a quality limiting the added value of additional labor effort. The growth of craft production was constrained by the competition between growing food and growing or gathering the materials needed for craft production; the trade-offs between growing food and cotton, for instance, left Africans unable to spare enough land and labor for cotton and thus for a cotton craft industry. When cheaper machine-spun yarn became available as an import, so too did cotton cloth, which limited the economic opportunities for Africans to expand cotton textile production, which was a labor-intensive kind of work.<sup>15</sup>

15 Gareth Austin, "Resources, techniques and strategies south of the Sahara: revising the factor endowments perspective on African economic development, 1500–2000," *Economic History Review* 61:3 (2008), 587–624.



African economic and environmental conditions were by themselves reason enough to make the expansion of wealth difficult to achieve through increased production. Wealth and power were both conventionally connected to control over scarce labor supplies, typically involving slave labor for production or sale, slaves having been captured through war and other forms of violence. When European states engaged in their scramble to divide up Africa into their colonies, Western capitalists were identifying the mineral wealth to be tapped and agricultural commodities to be produced for Western industrial use and consumption. But even where Africans proved able to create export agriculture in response to the new economic opportunities offered by an expanding Western capitalism, their governments were unable to conceive, let alone mount, programs of political state building that made plausible the linked pursuits of wealth and power to create polities and economies similar to those in Western Europe and the United States.

Southeast Asia shared with Africa some similar nineteenth-century economic and political conditions. Like Africa, Southeast Asia was land rich and labor poor. Politically, Southeast Asia also experienced the late nineteenth-century European territorial empires after an early modern era in which Europeans engaged mainly in trade, most prominently in slaves from Africa and spices from Southeast Asia. The economic parallels meant that nineteenth-century Southeast Asian changes in economic production, like those in Africa, centered on export agriculture rather than industry; the new mobilizations of labor in labor-poor Southeast Asia were achieved through immigration from both South Asia and China, often as indentured labor. Foreign entrepreneurs exerted strong influence or even control over key sites of production and exchange.<sup>16</sup>

Politically, almost all of the region fell under colonial rule by the British, Dutch, and French. The spread of British power from India into Burma and the spread of French power from Vietnam into Laos and Cambodia created pressure on the Siamese from both the west and east. The survival of a Siamese government as an independent regime depended crucially on the agreement of the British and French in the 1880s that they had reached a competitive balance in Southeast Asia, a part of which was a stable and independent Siam separating their colonial territories. While still politically independent in formal terms, the country was far closer to being a “semi-colonial” state with an economy laboring under more foreign restrictions.

16 M. C. Ricklefs, Bruce Lockhart, Albert Lau, Portia Reyes, and Maitrii Aung-Thwin, *A New History of Southeast Asia* (London: Palgrave Macmillan, 2010), pp. 165–237.



The opportunities for domestic political actors in Siam, let alone for the domestic elites in its colonized neighbors, to formulate state-building projects that included emulating Western industrialization, were therefore almost as limited as those in Africa.

For Siam specifically, domestic limitations on government rule also constrained the state's ability to focus more fully on British and French threats. King Mongkut (Rama IV) was politically weak when he ascended to the throne in 1851. Government ministries were under the control of powerful families whose patron–client networks formed vertically structured factions that made it difficult for the king to initiate reforms without challenging the power bases of different groups. His successor, the boy-king Chulalongkorn, and Regent Suriyawong began to initiate judicial and financial reforms in 1873 aimed at expanding his power to rule (Fig. 14.1).

While inspired by European practices, they were promoted in terms of Buddhist morality more easily understood by the population at large. Much like the generation of reformers active in China in the 1870s who distinguished between a Chinese core and Western techniques, the Siamese king did not see at that time any conceptual contradictions between Western-derived reforms serving a Buddhist political morality.<sup>17</sup> His subsequent decision to pursue reforms more explicitly designed to create a European-like government succeeded in increasing his control over provinces which had formerly been vassal or tributary states. This push for institutional change in the late 1880s followed a Thai prince's return from the London celebration of Queen Victoria's fifty years on the British throne with proposals for governmental reform modeled on European practices. These included the formation of a cabinet composed of twelve ministries, seven based on old ministries (interior, finance, agriculture, foreign affairs, war, palace, capital area administration) and new ministries for education, justice, public works, and the army.<sup>18</sup> Efforts to create new government institutions didn't lead to major capacity building results adequate for the government to halt the loss of its territory to the colonial regimes controlling its neighbors; by 1910 the government had lost to the British and French virtually half the territory over which their predecessors in the 1850s had claimed some direct or indirect authority. Not unlike the Ottoman state's plight, the Thai monarchy struggled to transform itself in order to survive,

17 David K. Wyatt, *Thailand: A Short History* (New Haven, CT: Yale University Press, 1984), pp. 181–198.

18 *Ibid.* pp. 199–214.



Figure 14.1 Portrait of Chulalongkorn, King of Siam (b.1853–1910), 1893  
(Chicago History Museum/Getty Images)

even if on a diminished scale amidst the geopolitical pressures exerted by European powers.

The nineteenth-century possibilities in South Asia for native political and economic leaders to mount strategies to create wealth and power based on emulating Western practices were doubly limited, one reason for this being obvious, a second far less so. First, the eighteenth-century expansion of East India Company control over trade and the enabling of British economic interests through political manipulation of the conditions under which trade took place, set in motion British involvement in India not merely as merchants but subsequently as formal colonial administrators after 1858 with continued hopes of benefiting politically and economically from India through revenues and profits. The colonial state, not surprisingly, did little to promote the kinds of industrialization that some Europeans, especially the Germans and Russians, pursued, since these European governments supported domestic political and economic interests who would benefit from such changes. The British did attempt to address water control issues and India, like Latin America and other parts of Asia, did get foreign capital and technology to build railroads, but there wasn't much positive and certainly no transformative stimulus to the economy from these efforts. The lack of structural change can be further explained by a second and less obvious cause. The private economy afforded domestic entrepreneurs opportunities to make profits through production and exchange and in those cases where industrial production proved profitable, jute and cotton being the main examples, these kinds of industry developed. New forms of production emerged, where profits could be made in sufficient amounts that native capitalists did not aspire to mount larger programs of economic development, especially since there was no government to organize such efforts. Across South and Southeast Asia, only the Thai monarchy was a government able to contemplate a plan of political reform that acknowledged the need to change political institutions in order to survive in a Western dominated world. Thai efforts, moreover, had no major economic agenda. Nowhere in South and Southeast Asia were there co-ordinated state efforts to pursue both wealth and power.

The construction of strong states and industrial economies were two major transformations of the nineteenth century that spread Western power over much of the world. Within Europe and beyond, governments made efforts to emulate the ideological and institutional innovations that took root in Western Europe and the United States. In Africa, the Middle East, and much of Asia, the interests and abilities of governments to respond

to these Western changes were limited by the roles that Western political and economic actors played in their regions. Nor did they possess the economic institutions and environmental conditions that enabled the kinds of economic transformations underway in Western Europe and the United States. To find politically self-conscious efforts to build up political and military power and transform economies through industrialization to create both wealth and power, we have to turn to East Asia.

### Self-strengthening in East Asia

It is in East Asia that we see conscious efforts to respond to Western threats with attempts to incorporate some foreign political practices into domestic government policies and introduce foreign economic practices into society more generally, and it is this world region that produced some of the most rapid economic growth and strong states a century later. This region also shared a much earlier history that included some common political concepts from classical Chinese texts to which the Chinese, Japanese, and Koreans appealed in related ways in the nineteenth century. The Chinese referred to political reform policies in several ways including “self-strengthening,” and the Japanese called their efforts a “restoration.” For most subsequent assessments of this period, it is the differences in Chinese “self-strengthening” (*zhiqiang* 自强) and Japanese “restoration” (*isshin* 维新) that are highlighted. Contrasting the nineteenth-century East Asian responses to the expansion of Western power with late nineteenth-century government policies in other world regions allows us to see some of the common elements of East Asian efforts as well as reasons for some of their differences from each other. It also adds regional and domestic dimensions of observation that complement and complicate those framed principally in terms of Western colonialism and imperialism, as well as those conceived in terms of global market integration.<sup>19</sup>

The characterization in the People’s Republic of China of nineteenth-century China as semi-feudal and semi-colonial identifies domestic and foreign causes for the society’s failure to develop capitalism. The domestic causes fit within a Marxist explanation of the European transition from feudalism to capitalism, and allow historians to identify certain social and political traits considered obstacles to progressive changes. The foreign causes explain externally imposed conditions that condemned the Chinese economy to a subservient role in an

19 Michael D. Bordo, Alan M. Taylor, and Jeffrey G. Williamson, eds., *Globalization in Historical Perspective* (University of Chicago Press, 2003).

increasingly global economy. The particular plight of the country could be accounted for because the country was neither fully feudal nor fully colonized. But the half-way points from feudalism and toward colonialism in fact lie along two separate axes. One concerns the organization of domestic authority and the second concerns a state's relationships to outside powers. Certainly the two can influence each other, but to map those connections more clearly we need first to consider the foreign and domestically inspired state activities separately.

Beginning in the 1860s, the Qing dynasty state developed political institutions to manage its affairs with Westerners and new organizations to import foreign technologies. Initially styled as "self-strengthening" (*zhiqiang*) and as the "foreign affairs movement" (*yangwu yundong* 洋务运动), the central government established an office devoted to foreign affairs, a translation bureau, and, with the participation of foreigners, a new bureaucracy to tax foreign trade. These central state efforts to deal with Westerners diplomatically and commercially were complemented by the labors of Chinese provincial officials who spearheaded the construction of arsenals, shipyards, and factories (Fig. 14.2).

An initial concern with those industries directly contributing to the state's military capacities in the 1860s and early 1870s was expanded to include light industry consumer goods like textiles.<sup>20</sup> By the 1880s, the state aimed to achieve two related aims: (1) to create the capacities to defend the country against foreign political demands and to negotiate with foreign governments effectively; (2) to develop new forms of production deemed basic to the wealth-producing abilities of European countries. The government wanted to produce the practical equipment of European wealth and power such as Western firearms and industrial machinery; they recognized the need to learn new kinds of scientific knowledge and to train people to manage the use of new technologies. Officials in the 1870s and 1880s believed that they could learn the technologies of Western wealth and power without having to accept broader cultural changes or deeper political reforms. They were followed by a generation of reformers in the 1890s with a broader exposure to Western political ideologies and institutions who embraced parliamentary institutions.<sup>21</sup>

The subsequent failures of Chinese reform efforts are typically seen to be both political and economic. In political terms, the Qing state failed to develop

20 Ting-yee Kuo and Kwang-Ching Liu, "Self-strengthening: the pursuit of Western technology," in John K. Fairbank, ed., *The Cambridge History of China*, Vol. 10: *Late Ch'ing, 1800–1911, Part 1* (Cambridge University Press, 1978), pp. 491–542.

21 Hao Chang, *Liang Ch'i-ch'ao and the Intellectual Transition in China, 1890–1907* (Cambridge, MA: Harvard University Press, 1978); Joseph Levenson, *Confucian China and its Modern Fate: A Trilogy* (Berkeley, CA: University of California Press, 1968).

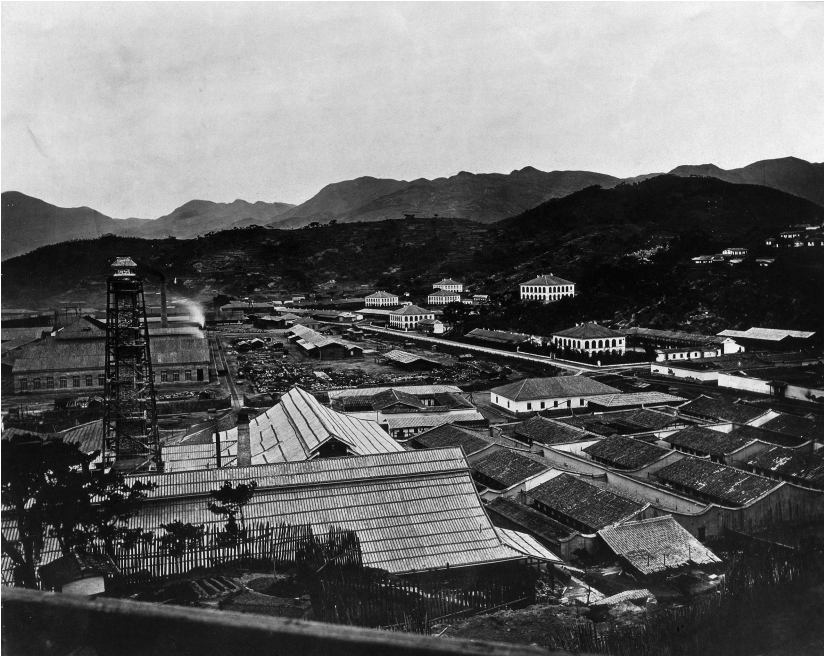


Figure 14.2 Fuzhou Arsenal, China, 1864–1872  
(SSPL/Getty Images)

parliamentary institutions despite the clamor for them made by leading reformers of the 1890s. In economic terms, the state's efforts to create new industries did not jump-start broader processes of economic change. By highlighting outcomes that did not occur, however, such interpretations can miss the efforts that late Qing officials bent upon creating a stronger state and more prosperous society actually made, or prevent one from making an informed assessment of their achievements. In contrast, Yue Meng and Benjamin Elman have each studied late Qing official promotion of Western technologies, especially in ship building and military armaments production, documenting the great successes that contemporaries within and beyond China observed; the projection backward of failure from a later point in time was influenced first by the Chinese defeat in the Sino-Japanese War (1894–1895) and then by the contrasting paths of economic change in China and Japan.<sup>22</sup>

22 Yue Meng, "Hybrid science versus modernity: the practice of the Jiangnan Arsenal, 1864–1897," *EASTM* 16 (1999), 13–52; Benjamin Elman, *On Their Own Terms: Science in China, 1550–1900* (Cambridge, MA: Harvard University Press, 2005), pp. 353–395.



The efforts to promote industrialization that Chinese officials made beyond their direct involvement in arsenals make clearer the ways in which self-strengthening efforts were understood to include both domestic and foreign policy goals built on past political and economic practices. The formation of Chambers of Commerce as part of the New Policies in the early twentieth century, for example, might look to a foreign observer as the recognition of an advocacy organ for merchants, but in fact the Chambers took on roles in processes of decision-making in which officials remained in charge. Principal among their functions was dealing with commercial disputes and managing tax matters. They were not expected to be an advocacy group, a fact much lamented in Chinese scholarship.<sup>23</sup> Officials more generally did not want to mobilize elites for them to voice their political demands but rather wanted to marshal elite support for political issues the state deemed important. For example, when anti-opium associations were initially formed by elites to exhort people to stop opium use, explicit limitations were set regarding what subject matter appeared in their pamphlets: "These publications should not interfere with politics or subjects outside of their province." By 1906, when government efforts at opium suppression peaked, these associations were extensions of government authority, as an edict granted them "full authority to enter any place for examination and placing at their disposal officers to enforce their demands for admittance or to make arrests where ordered by such committees."<sup>24</sup> Late Qing officials drew at least an implicit distinction between their mobilizing elite participation in a shared social project, such as suppressing the use of opium, and the aspirations of some vocal elites to have a more formal political voice.

From the point of view typical among officials, mobilizing elite participation in political projects served the purpose of officials and elites jointly pursuing in a co-ordinated manner a governance agenda that built upon a largely domestic set of concerns before the mid-nineteenth century. While self-strengthening certainly defined its primary objectives with respect to the political challenges posed by new foreign threats, the political logic of strengthening the abilities of the country to face outsiders complemented strengthening domestic governance. The relationship between the two is

23 Min Ma and Zhu Ying, 傳統與近代的二重變奏: 晚清蘇州商會個案研究 (*Chuantong yu jindai de erzhong bianzou: Wan Qing Suzhou shanghui ge'an yanjiu* [Two Variations on Tradition and the Modern Era: Case Studies of the Late Qing Suzhou Chamber of Commerce]) (Chengdu: Bashu shushe, 1993).

24 R. Bin Wong, "Opium and Chinese State Making," in Timothy Brook and Bob Wakabayashi, eds., *Opium and Asian History* (Berkeley: University of California Press, 2000), pp. 189–211.

exemplified by the economic logic of promoting industry. From the vantage point of augmenting state military capacities, the industries promoted were all new factory-based forms of production requiring imported technologies. The same officials who began with such efforts also expanded their industrial projects to include factories producing consumer goods, most notably cotton textiles. By the early twentieth century, Chinese official understanding of “industry” (工业 *gongye*) included not only new kinds of factories organizing labor in new ways and utilizing technologies imported from abroad, but also subsidiary craft industries pursued by agrarian households.<sup>25</sup> The government sought to promote the spread of new industrial techniques through the formation of bureaus (局 *ju*) dedicated to collecting and disseminating information on the “industrial arts” (工艺 *gongyi*).<sup>26</sup> This understanding of industry, which linked the new industries of the self-strengthening movement to older forms of craft industrial production, motivated a spectrum of subsequent government efforts to promote industries across urban and rural settings.

When we turn to Japan and look at government promotion of industries beyond the modern factory industries initially sponsored by the government, we discover that Japanese officials also sought to foster small-scale, labor-intensive industries outside their large cities.<sup>27</sup> Both Chinese and Japanese governments recognized the importance of small-scale labor-intensive forms of industrial production. In China the early twentieth-century concept of “industry” included a wide span of technologies, from the capital-intensive technologies in many factories to the far more labor-intensive skilled craft technologies used both in smaller workshops and even in household settings.<sup>28</sup> The Japanese shift to urban industry in the first three decades of the twentieth century was characterized by a growing number of small-scale manufacturing units; this followed a period of improvements in labor-intensive craft technologies, including improvements in the production of raw silk exported to Europe.<sup>29</sup> Labor-intensive industrialization was a process distinguishing

25 直隶工艺志初编 (*Zhili gongyi zhi chubian* [Initial Compilation of Industrial Arts in Zhili]) (1904).

26 Jie Wang, 清末商部研究 (*Qingmo shangbu yanjiu* [Research on the Late Qing Ministry of Commerce]) (Shanghai: Renmin chubanshe, 2008), pp. 217–221.

27 Tessa Morris-Suzuki, *The Technological Transformation of Japan: From the Seventeenth to the Twenty-first Century* (Cambridge University Press, 1994).

28 Jiangsu sheng shiye shicha baogao shu (江苏省实业视察报告书 [A Survey Report of Jiangsu Province Industries]) (1919).

29 Masayuki Tanimoto, “From peasant economy to urban agglomeration: the transformation of ‘labour-intensive industrialization’ in modern Japan,” in Gareth Austin and Kaoru Sugihara, eds., *Labour-Intensive Industrialization in Global History* (London:



Chinese and Japanese experiences from those in Europe and the United States; it was deliberately fostered by government policies begun during the late nineteenth-century self-strengthening era. The economic strategies fostered by self-strengthening sought to apply technological possibilities imported from the West in ways that enhanced small-scale, labor-intensive production practices widely present in East Asia but rare, if not absent, in much of late nineteenth-century Europe and the United States.

The similarities of Chinese and Japanese policies toward industrialization are infrequently recognized because scholars have believed that the government policies should have been different and that such differences are part of explaining why Japan began to industrialize and China did not. But the principal reason that the economic impacts of late nineteenth-century state policies appear so different in China and Japan results from the dramatic difference in the sizes of the countries and the basic fact that industrialization is a spatially specific process that spreads over time, when accompanied by the formation of capital and labor markets, to facilitate the movement of factors of production, and where disparities in resource endowments and labor skills do not impoverish the development possibilities of poorer areas. If we choose to compare a part of China more similar in size to Japan, such as the Jiangnan region surrounding Shanghai, early twentieth-century industrial changes appear more similar in the two cases.<sup>30</sup> If we want to consider China as a single unit we need to search for other larger units. Whether one looks at Europe as a whole or the United States, both spatial units more similar in size to China than any single European country, one can see the spatially specific locations of industries at the onset of industrialization and the subsequent spread to different regions over time. Had China not been rocked by the violence and disruption caused by warlords, a Japanese invasion, and a subsequent civil war, perhaps the country would also have seen some spread of industrialization at a more rapid rate than in fact took place. In this respect the country shared with the collapsing Ottoman Empire as well as the fragile polities in British India and Brazil nascent industries that lacked the social and political conditions within which their expansion could lead to broader economic developments. Chinese and Japanese policies of industrialization shared key features that could not produce the same results because the countries differed greatly in spatial and demographic size. The spatial extent

Routledge, 2013), pp. 144–175; Morris-Suzuki, *Technological Transformation of Japan*, pp. 37–43.

- 30 Debin Ma, “Economic growth in the Lower Yangzi region of China in 1911–1937: a quantitative and historical analysis,” *Journal of Economic History* 68:2 (2008), 355–392.

of China meant that self-strengthening industrialization would necessarily take more time than in Japan – a requirement not met due to political disruptions and violence after 1900.

A shift to compare more similarly sized economic units to assess the impact of similar policies over longer periods of time reminds us how different the political projects of China and Japan were in the late nineteenth century. Japan enjoyed economic policy-making options easier to achieve because of the difference in the size of the two countries, leading to a combination of import substitution and export promotion policies in later decades.<sup>31</sup> Policy differences after the late nineteenth-century self-strengthening episodes were linked to differences in the business organizations of the countries and to what became fundamentally different, and conflicting, political agendas. China's political agenda from the late nineteenth century forward was how to create a strong and prosperous country that could survive the twin dangers of foreign aggression and domestic disintegration. Japan's late nineteenth-century political agenda began with domestic overhaul that became the basis for an early twentieth-century agenda of colonial expansion and regional hegemony, culminating in Japan's 1937 invasion of China and the creation of a Pacific war.

To return to the mid-nineteenth-century situation in Japan, major changes in Japanese political institutions were set in motion after some provincial leaders lost confidence in the abilities of central government officials to sustain social order and curb the threat of rising Western demands upon the country. With claims of restoring authority to the emperor, who had not in fact played much more than a symbolic role for the previous several centuries, political leaders from some of the provinces led the Meiji Restoration (1868) to build new central government institutions and strengthen lines of authority from the capital over the provinces. This state-building process followed a year-and-a-half mission by Japanese diplomats through Europe and the United States to study foreign models of government. The template for many new political institutions came from Western practices.<sup>32</sup> The political reorganization of the Japanese government more

31 Japanese textile firms exported their cotton cloth to China through powerful business groups (*zaibatsu*) that enjoyed close relations to the government; at the same time these same diversified business groups included firms that developed Japan's chemical dye industry when government tariffs made German dye imports more expensive. See William Mass and Hideaki Miyajima, "The organization of the developmental state: fostering private capabilities and the roots of the Japanese 'miracle,'" *Business and Economic History* 22:1 (1993), 151–168.

32 D. Eleanor Westney, *Imitation and Innovation: The Transfer of Western Organizational Patterns in Meiji Japan* (Cambridge, MA: Harvard University Press, 1987).

readily enabled an engagement with Western powers according to the latter's expectations of what national states looked like. The Meiji government's bureaucratically structured administration of prefectures under central control contrasted sharply with the previous Tokugawa regime, in which samurai lords enjoyed authority over their domains in ways that paralleled the shogun's authority over his much larger expanse of territory and population. No administrative reforms to the Qing state could have had quite the same impact of creating centralized state administration as did the Japanese reforms, since the principles and practice of centralized bureaucratic government had existed for centuries in China.

If we consider the fragmentation of the Ottoman and Austro-Hungarian empires and the Qing empire's ability to survive both widespread domestic rebellion and decades of demands by foreign powers, the significance of the Chinese tradition of civilian bureaucratic rule emerges as a major difference, not only with Japan's political structure, but also with the more common political conditions of large territorial empires. By the nineteenth century, China had had a political tradition of imperial rule for some two millennia; basic to Chinese conceptions of rule were an ideology and institutions of bureaucratic governance that more often than not were applied over a vast expanse of territory, with claims to control over large numbers of subjects through the same template of institutions and policies.<sup>33</sup> From roughly the tenth century forward, a civil service bureaucracy staffed by individuals selected for their success at examinations demanding years of study was expected to make decisions according to a growing body of administrative law. The Qing dynasty (1644–1911/12) in particular consolidated the role of provincial governors and created a vertically integrated bureaucratic system in which multiple lines of communication and authority extended from the center to each of more than thirteen hundred counties, with populations ranging from tens to hundreds of thousands of people.<sup>34</sup>

The challenges of conceptualizing bureaucratic rule over a vast agrarian society and developing the particular capacities deemed realistic and desirable were well beyond the historical experiences of Western observers. Even if the empire they began to understand through personal experience in the second half of the nineteenth century had not been rocked by widespread domestic rebellions, they would have been unlikely to recognize the

33 Yuri Pines, *The Everlasting Empire: The Political Culture of Ancient China and Its Imperial Legacy* (Princeton University Press, 2012).

34 R. Kent Guy, *Qing Governors and Their Provinces: The Evolution of Territorial Administration in China, 1644–1796* (Seattle, WA: University of Washington Press, 2010).

problems and possibilities of ruling such a society. Nor, of course, would they in general have been greatly interested in doing so. Rather, Western economic and political interests in foreign countries largely desired that foreign governments supply them with familiar settings in which to conduct their affairs, and have the range of institutions and practices necessary for doing business according to Western norms and asserting their political agendas. How state efforts at reform were attempted in other world regions was far less important to Western observers than the presence or absence of institutional practices with which they were familiar.

For their parts, political leaders in East Asia in the second half of the nineteenth century undertook territorial expansion and consolidation projects mindful of Western concepts of sovereignty and international relations. Their state-building efforts were intended first to thwart potential encroachments of European countries in their region and then turned toward political competition within the region among themselves. Japanese leaders learned the European lexicon of diplomatic relations and principles of sovereignty in order to make claims over the Ryūkyū islands.

The path by which the Ryūkyū kingdom became Okinawa prefecture within Japan highlights one way in which a successful self-strengthening effort made possible through adaptation of European institutions and made desirable because of Western threats also changed political relations among governments in Asia. Entering the nineteenth century, the Ryūkyū government's political status and economic well-being were defined by a balancing act it maintained with respect to China and Japan, which became less stable once Western powers entered the area.<sup>35</sup> The example of Singapore being established by the British and its growing population, mainly of Chinese, falling under increasingly formal and broad British authority, alerted the Ryūkyū leaders that such a fate might befall them without some protection from the Japanese. Both the Japanese government and the Ryūkyū leaders therefore had reason to promote the proposition to Westerners that the Ryūkyūs were part of Japan.<sup>36</sup>

European norms of domestic rule influenced the rhetoric and actions of Japanese government leaders extending rule over Okinawa to the south and Hokkaido in the north. While the mix of domestic and foreign stimuli to assert rule of Qing empire peripheries differed from the Meiji case, the Qing

35 Gregory Smits, *Visions of Ryukyu: Identity and Ideology in Early Modern Thought and Politics* (Honolulu: University of Hawai'i Press, 1999).

36 Kazuyuki Tomiyama, *Ryūkyū ōkoku no gaikō to ōken* (*The Ryūkyū Kingdom's Foreign Relations and Royal Power*) (Tokyo: Yōshikawa Kōbunkan, 2004).

establishment of standard civilian bureaucratic offices to rule the militarily reclaimed territory becoming Xinjiang, literally “new border,” also represented a state-building effort in China prompted in part by central government concerns of possible expansions of British and Russian political and military influence on the empire’s northwestern frontiers.<sup>37</sup> Faced with political challenges on both its Inner Asian and maritime frontiers, the central government chose to undertake a major military campaign in 1877 followed by the extension of the regular civilian bureaucratic rule into the frontier region. The extension and strengthening of central government control over newly incorporated peripheries in both the Chinese and Japanese cases were forms of state making responding to a combination of Western norms and pressures. The local political competitors to the Qing authorities in Xinjiang and Meiji government in the Ryūkyūs were too weak to remain independent. In these separate cases both the Chinese and Japanese states asserted their abilities to expand and consolidate their respective territorial control.

In a shared scenario of competing for political influence in Korea, a different political outcome emerged that also was heavily colored by the rhetoric and sensibilities of Western political thought and logics. Considering the late nineteenth-century geopolitics of East Asia from the vantage point of Korea and in comparison to the situation of the Ryūkyūs, Korea found itself located between the two larger powers of China and Japan. But unlike the Ryūkyūs, which only attempted to build a bureaucratic state in the eighteenth century, Korea had a well-developed bureaucratic state with some five centuries of reasonably stable and continuous governance, based on political principles common to the Chinese tradition of statecraft. Aware of the expansion of European power into East Asia and the self-strengthening efforts made by the Chinese and Japanese, reform-minded Korean officials began to pursue some of the political changes undertaken in these two other East Asian countries. Chinese and Japanese competition for political influence led them to support different factions of Korean officials. No less a figure than Li Hongzhang attempted to mitigate growing Japanese political and economic influence in Korea by fostering treaties between Korea and Western nations as a diplomatic buffer between Korea and Japan.<sup>38</sup> His

37 Kwang-Ching Liu and Richard Smith, “The military challenge: the north-west and the coast,” in John K. Fairbank and Kwang-Ching Liu, eds., *The Cambridge History of China*, Vol. 11: *Late Ch’ing, 1800–1911, Part 2* (Cambridge University Press, 1980), pp. 202–273.

38 Li was a major government figure who played a leading role in forming armies that defeated the Taiping rebels, supported self-strengthening efforts at developing industry, and led Chinese negotiations for the treaties to end the Sino-French War in 1886, Sino-Japanese War in 1895, and the Eight Nation Alliance whose military forces entered

expectations that such treaties could be efficacious proved unfounded as European interests in the geopolitical competition of countries in Northeast Asia were limited when the issues did not directly concern the interests of their own people in the region.

Korean treaties with Western countries failed to protect Korea from Japanese power. Japanese political aspirations in East Asia, including its formation of colonies in Taiwan and Korea, also utilized principles and sentiments first expressed by Europeans in their colonial expansions. Western political principles and practices when adopted and adapted in East Asia therefore influenced domestic state building and regional political relations as well as the abilities and desires of East Asian states to engage Western governments. The Japanese were most able to create a state modeled on Western ones and apply Western principles for both domestic institution building and asserting their expansionary aims in East Asia more generally. The Koreans had the least opportunity to use Western principles or draw upon statecraft traditions shared with the Chinese because of their vulnerability to regional political competition and conflict. The Chinese were able both to develop political institutions and deploy political principles first formulated in Europe, but recognized the limitations of both Western political practices for governing their agrarian empire. Western-inspired changes could become parts of a larger program of activities intended to sustain social order and political control across an area as vast as Europe and with a population more than twice as large. Chinese self-strengthening efforts could therefore be neither as visible nor as successful as those in Japan, because the broader agendas of political challenges and opportunities in these two countries differed.

Compared with other large imperial polities, the Qing self-strengthening efforts appear at least somewhat effective. The Russian and Ottoman empires were both challenged by and inspired by Western European practices to strengthen their states and economies in many ways similar to the late nineteenth-century Chinese efforts at self-strengthening. Economic practices and political institutions differed in each empire, but each faced domestic challenges because of their large size that Western European countries, the models for building powerful states and wealthy economies, did not encounter. The challenges of ruling large amounts of territory were often met by central governments through delegating power to regional authorities, a practice related to empire building which co-opted local and regional political

Beijing in response to the Boxer Uprising directed against foreign missionaries. See Michael J. Seth, *A Concise History of Modern Korea: From the Late Nineteenth Century to the Present* (Lanham, MD: Rowman & Littlefield, 2010), pp. 9–42.

leaders to accept positions according to an imperially defined political order. The Chinese went further than any other empire in developing the principles and practices of bureaucratic rule to govern the vast majority of its subjects, which reduced the likelihood of the kinds of regional initiatives that took place in the Ottoman Empire and avoided acknowledging the local authority of noble elites as was common in the Russian Empire. For the Chinese and Ottoman empires, Europeans were a source of both examples and threats. Each of these empires possessed cultural identities, economic organizations, and political structures that differed from those of Europeans. The Russian case alerts us to the self-strengthening aspirations affecting Eurasian empires more generally, and the limits of applicability to large polities of the political practices and economic principles that worked well for smaller countries. The United States offers a striking contrast to empires as a territorially large polity constructed as much from the bottom up as the top down. This was possible owing to the small and mobile population and common principles of governance, wary of concentrations of power, but dedicated to co-ordination across the country.

More generally, the nineteenth century was a century of empires and countries that had been former colonies. Many of those not subject to the imperial authority of the Qing, Ottoman, or Russian empires were Africans and Asians subject to a European colonial authority. Countries like Thailand that had neither an explicitly colonial past nor a colonial future were rare. In East Asia, Japan would build a twentieth-century empire of which Korea became a part. In the Americas, the colonial histories of most countries were completed by the early nineteenth century. As white settler societies, these former colonies differed from colonial societies in other world regions where Europeans were typically a tiny minority. They did not discover the demands and desires for self-strengthening as new and foreign in the manner experienced in East and Southeast Asia.

East Asian self-strengthening aspirations took on common features both because the pressures from the West were shared among them, even if unevenly, and because they had traditions of rule distinct from European traditions which made adoption of Western practices an explicit issue of utilizing what was foreign as well as what was new. But what makes East Asian experiences distinct is not their appeal to principles and practices originating among the successful regimes in the West. This was done as well by less powerful and poorer countries whether in the West or in other world regions, a global fact which makes self-strengthening one of several ways in which politically weaker and economically poorer countries



encountered and engaged examples of Western power and wealth. What the Chinese and Japanese did was integrate emulation of Western practices producing power and wealth with domestic political priorities and economic institutions in ways that proved durable well beyond the late nineteenth century, demonstrated by the post-Second World War Japanese recovery and growth, and more recently by China's conscious and aggressive pursuit of wealth and power. Nineteenth-century self-strengthening episodes in both China and Japan form chapters in the narratives leading to late twentieth-century episodes of East Asian power and wealth becoming consequential globally. Within a nineteenth-century global frame of reference, self-strengthening efforts as consciously conceived in East Asia were at one end of a global range of political responses to the wealth and power of certain Western countries that varied in their ambition and effectiveness. They are one of several global "ligaments" analyzed in this volume. In this case, these ligaments connected the "bones" of different political regimes and economic practices to form a global skeleton over the course of the nineteenth century.

### Further reading

- Austin, Gareth. "Resources, techniques, and strategies south of the Sahara: revising the factor endowments perspective on African economic development, 1500–2000." *Economic History Review* 61:3 (2008), 587–624.
- Bordo, Michael D., Alan M. Taylor, and Jeffrey G. Williamson, eds. *Globalization in Historical Perspective*. University of Chicago Press, 2003.
- Carmagnani, Marcello. *The Other West: Latin America from Invasion to Globalization*. Berkeley, CA: University of California Press, 2011.
- Chang, Hao. *Liang Ch'i-ch'ao and the Intellectual Transition in China, 1890–1937*. Cambridge, MA: Harvard University Press, 1978.
- Cracraft, James. *The Petrine Revolution in Russian Culture*. Cambridge, MA: Harvard University Press, 2004.
- Elman, Benjamin. *On Their Own Terms: Science in China, 1550–1900*. Cambridge, MA: Harvard University Press, 2005.
- Emmons, Terence, and Wayne S. Vucinich, eds. *The Zemstvo in Russia: An Experiment in Local Self-Government*. Cambridge University Press, 1982.
- Findley, Carter Vaughn. "The Tanzimat." In Reşat Kasaba, ed., *The Cambridge History of Turkey*, Vol. 4: *Turkey in the Modern World*. Cambridge University Press, 2008, pp. 11–37.
- Guy, R. Kent. *Qing Governors and their Provinces: The Evolution of Territorial Administration in China, 1644–1796*. Seattle, WA: University of Washington Press, 2010.
- Haber, Stephen. "The political economy of industrialization." In Victor Bulmer-Thomas, John Coatsworth, and Roberto Cortés Conde, eds., *The Cambridge Economic History of Latin America*. Cambridge University Press, 2006, pp. 537–584.



- Hosking, Geoffrey A. *The Russian Constitutional Experiment: Government and Duma, 1907–1914*. Cambridge University Press, 1973.
- Kuo, Ting-ye, and Kwang-Ching Liu. "Self-strengthening: the pursuit of Western technology." In John K. Fairbank, ed., *The Cambridge History of China*, Vol. 10: *Late Ch'ing, 1800–1911, Part 1*. Cambridge University Press, 1978, pp. 491–542.
- Levenson, Joseph. *Confucian China and its Modern Fate: A Trilogy*. Berkeley, CA: University of California Press, 1968.
- Liu, Kwang-Ching, and Richard Smith. "The military challenge: the northwest and the coast." In John K. Fairbank and Kwang-Ching Liu, eds., *The Cambridge History of China*, Vol. 11: *Late Ch'ing, 1800–1911, Part 2*. Cambridge University Press, 1980, pp. 202–273.
- Ma, Debin. "Economic growth in the Lower Yangzi region of China in 1911–1937: a quantitative and historical analysis." *Journal of Economic History* 68:2 (2008), 355–392.
- Ma, Min, and Zhu Ying. 傳統與近代的二重變奏: 晚清蘇州商會個案研究 (*Chuantong yu jindai de erzhong bianzou: Wan Qing Suzhou shanghui ge'an yanjiu* [Two Variations on Tradition and the Modern Era: Case Studies of the late Qing Suzhou Chamber of Commerce]). Chengdu: Bashu shushe, 1993.
- Mass, William, and Hideaki Miyajima. "The organization of the developmental state: fostering private capabilities and the roots of the Japanese 'miracle.'" *Business and Economic History* 22:1 (1993), 151–168.
- Meng, Yue. "Hybrid science versus modernity: the practice of the Jiangnan Arsenal, 1864–1897." *EASTM* 16 (1999), 13–52.
- Morris-Suzuki, Tessa. *The Technological Transformation of Japan: From the Seventeenth to the Twenty-first Century*. Cambridge University Press, 1994.
- Pines, Yuri. *The Everlasting Empire: The Political Culture of Ancient China and Its Imperial Legacy*. Princeton University Press, 2012.
- Ricklefs, M. C., Bruce Lockhart, Albert Lau, Portia Reyes, and Maitrii Aung-Thwin. *A New History of Southeast Asia*. London: Palgrave Macmillan, 2010.
- Seth, Michael J. *A Concise History of Modern Korea: From the Late Nineteenth Century to the Present*. Lanham, MD: Rowman & Littlefield, 2010.
- Smits, Gregory. *Visions of Ryukyu: Identity and Ideology in Early Modern Thought and Politics*. Honolulu: University of Hawai'i Press, 1999.
- Sokoloff, Kenneth, and Stanley Engerman. "History lessons: institutions, factor endowments, and paths of development in the New World." *Journal of Economic Perspectives* 14 (2000), 217–232.
- Summerhill, William. "The development of infrastructure." In Victor Bulmer-Thomas, John H. Coatsworth, and Roberto Cortés Conde, eds., *The Cambridge Economic History of Latin America*. Cambridge University Press, 2006, pp. 293–326.
- "Railroads in imperial Brazil." In John H. Coatsworth and Alan M. Taylor, eds., *Latin America and the World Economy Since 1800*. Cambridge, MA: Harvard University Press, 1998, pp. 383–406.
- Tanimoto, Masayuki. "From peasant economy to urban agglomeration: the transformation of 'labour-intensive industrialization' in modern Japan." In Gareth Austin and Kaoru Sugihara, eds., *Labour-Intensive Industrialization in Global History*. London: Routledge, 2013, pp. 144–175.
- Teich, Mikuláš, and Roy Porter, eds. *The Industrial Revolution in National Context: Europe and the USA*. Cambridge University Press, 1996.

- Tomiyaama, Kazuyuki. *Ryūkyū ōkoku no gaikō to ōken (The Ryūkyū Kingdom's Foreign Relations and Royal Power)*. Tokyo: Yōshikawa Kōbunkan, 2004.
- Wang, Jie. 清末商部研究 (*Qingmo shangbu yanjiu [Research on the Late Qing Ministry of Commerce]*). Shanghai: Renmin chubanshe, 2008.
- Westney, D. Eleanor. *Imitation and Innovation: The Transfer of Western Organizational Patterns in Meiji Japan*. Cambridge, MA: Harvard University Press, 1987.
- Wong, R. Bin. *China Transformed: Historical Change and the Limits of European Experience*. Ithaca, NY: Cornell University Press, 2000.
- Wyatt, David K. *Thailand: A Short History*. New Haven, CT: Yale University Press, 1984.

## Decolonization and its legacy

PRASENJIT DUARA

Although decolonization has been one of the most significant events in the twentieth century, transforming colonies and dependent territories into nation states, it remains an amorphous term because of the different phases and varieties of decolonization. This chapter excludes the pre-twentieth-century movements of independence in the Americas, Europe, and Australia and New Zealand, and focuses on the movements for independence from Western and Japanese colonial rule principally in Asia and Africa from the early part of the century until the 1980s. I do include the “decolonization” of several countries in this region that were never fully or formally colonized, eg. China, Iran, Siam, and others, because they shared several important characteristics and most especially a world view with the anti-colonial movements mentioned above, that, while transformed, continues to be relevant today.<sup>1</sup>

Conceived narrowly, decolonization refers to the transfer of institutional and legal control by colonial governments over their territories and dependencies to indigenously based, formally sovereign states. But the movement was a much wider one, championing claims to human justice that had been denied by imperialism. Decolonization can be approached from a very wide range of perspectives including those of economic and social, cultural, and environmental histories, among others. I have chosen to focus on political and ideological themes in the relationship of decolonization to imperialism, nationalism, and especially the Cold War, because this is a neglected issue and has the potential to change the ways we look at several of the other approaches.

The victory of Japan over Russia in 1905, symbolizing the first military defeat of a modern European state by an Asian one, gave the nascent decolonization

<sup>1</sup> Many of the details cited in this chapter are taken from Prasenjit Duara, ed., *Decolonization: Perspectives from Now and Then* (London: Routledge, 2004).

movement a fillip. A number of anti-colonial resistance groups began to perceive their movements as part of a worldwide and world-redeeming project. While the movement is seen to have reached a climax in the Bandung Conference of Afro-Asian solidarity in 1955, decolonization movements particularly in smaller countries in Africa and Caribbean and Pacific islands continued until the 1980s.

Both 1905, the Russian defeat at the hands of the Japanese, and 1955, the Bandung Conference, may be seen as inflection points, but they are also ambiguous moments that reveal weaknesses and fault-lines in the movement. They urge us to contemplate not only the ideals and efforts to usher in a new era, but structural problems within the national model and the (heretofore) imperialist nation state system which these societies aspired to reform. Stated briefly, these problems have to do with re-hauling complex and pluralistic historical societies into nations with a disciplined loyalty to the state. Secondly, these societies aspired to fulfill universal humanist goals even while the nation state's design had evolved to compete for resources and domination in the world.

This chapter describes the general course of decolonization with these tensions in mind. The latter part of the chapter probes these issues through the Cold War order which complicated the decolonization movement. Finally, I consider the legacy of decolonization ideals and ideologies in the post-Cold War period, particularly of the Chinese revolution and in Middle Eastern societies where Islamism also became intertwined with the anti-imperialist movement.

## Imperialism and anti-imperialism

The imperialism of Western nation states and, later, Japan spread, beginning roughly in the mid-eighteenth century, to Asia, Africa, and the Caribbean and Pacific islands. The brutal and de-humanizing conditions it imposed upon these places have been well documented, most graphically by the independence movements themselves. At the same time, as Karl Marx noted, this imperialism represented an incorporation of these regions into the modern capitalist system although on deeply unequal terms. Typically, the principal beneficiaries of colonial rule – apart from the colonial masters – were the entrepreneurial and service classes that inhabited the port cities such as Algiers, Accra, Luanda, Cape Town, Aden, Bombay, Calcutta, Shanghai, and Hong Kong, which were often the principal nodes linking imperialist commercial interests with colonial hinterlands. Many from these classes were

able to improve their material positions and learn the languages and skills of the colonizers.

At the same time, however, these brokers and entrepreneurs experienced the indignities of a racist colonialism which imposed very concrete limits on their career and business possibilities, on where they could live and socialize, and with respect to recognition of their cultural identities. Educated Chinese bristled at the signs of “Dogs and Chinese not allowed” widely believed to be posted in public places in the foreign settlements in Shanghai and elsewhere. These were people who experienced constant denial and humiliation because of their color or origins, but they were also people who, like Mahatma Gandhi, clearly recognized the contradictions these actions presented to the Western doctrines of humanism and rationality. Finally, they were the people who understood the modern world well enough to know how to mobilize the resources to topple colonial domination.

Apart from the inequalities generated by imperial privilege and advantage, colonized societies also witnessed the massive erosion of existing communities which experienced the deepening impact of capitalism and alien cultural values. Everywhere native intellectuals complained of the erosion of rural ties, the decline of village industries and rapid class differentiation. The extent to which these communities were able to adapt to the new circumstances depended upon the historically available capacities they were able to muster as well as their position and role in the imperialist incorporation process. Thus it was not uncommon to find a dualistic type of society in the colonies: on the one hand, an adaptive and relatively modern, coastal, urban sector, integrated under however unequal terms, with metropolitan society. On the other hand, one finds a vast hinterland where historical forms of social life, economic organization, and exploitation, continued to exist, but hardly as pristine “tradition.”

This is the phenomenon known in dependency theory as “the articulation of modes of production,” whereby modern capitalism utilizes non-capitalist modes of production and exploitation for the production of capitalist value. Whether responding to global prices or a plantation economy, these regions also serviced the modern capitalist sector of the metropolitan economy, but, typically, they received few of its benefits. In other words, the gap should not to be seen merely as the difference between a traditional and a modern sector, but as different kinds of incorporation into the capitalist system. The gap between these two sectors and ways of life would often shape and bedevil the decolonization process.

Colonization in the nineteenth century had been justified by Social Darwinist rhetoric which held that the colonies were non-nations and unable to engage in civilized economic and political intercourse. Darwin's theory of "the survival of the fittest" was applied to races and nations and justified imperialist domination through an understanding that a race or nation that did not dominate would instead be dominated. The rhetoric of Social Darwinism intensified in the late nineteenth century when imperialist competition also accelerated, particularly as late-comer capitalist states such as Germany, Italy, the US, Russia, and Japan sought to gain resources and market share from the established imperialist powers of Atlantic Europe. The two world wars of the twentieth century were triggered by the challenges posed by late-comer nation states such as Japan and Germany.

In the early twentieth century, the lessons learnt by most leaders in the decolonization movements were that the only way their societies could survive and succeed in the global capitalist system was to refashion them into nations equipped with a progressive vision of history, an industrial economy, modern institutions, and a disciplined and mobilized population. To be sure, some of the important decolonization thinkers, such as Mahatma Gandhi and Rabindranath Tagore from India were convinced early that reproducing the capitalist nation state in their societies would perpetuate many of the ills of industrialism and competition they were decrying, but they remained in a minority.

Furthermore, during the early stages of the decolonization movement, the goal was not always the establishment of independent nation states. The British Commonwealth format was followed by the French in Africa and the Japanese in East Asia devising ideals of political affiliation under the new rhetoric of a federated empire that attracted some followings among the colonized. However, the imperialists were ultimately unable to share power and the ideal of the sovereign nation state became increasingly dominant. National independence therefore became the goal of decolonization.

In seeking recognition and membership in the system of nation states, the colonized sought to reproduce in most important respects the society of the colonizer. While these would-be nations, like existing ones, celebrated their unique and ancient traditions, they were – perhaps in the very process – entering a phase of what we might call "cognitive globalization." The overhaul of institutions and culture entailed national versions of essentially global conceptions not only of technical standards such as the hertz or kilos, but of the person (such as the "child" or the "deviant") and the world (as constituted by homologous, historically evolving nations). As such, it would be difficult

for them to avoid the difficulties revealed earlier by the competitiveness and aggressive behavior towards other societies.

By the end of the Great War (1914–1918), the critique of the injustices of Western capitalist civilization became an integral part of the decolonization movement. The Russian Revolution of 1917 and Woodrow Wilson's formulation of the Fourteen Points and principles of self-determination in 1918 encouraged the global anti-imperialist movement espoused by leaders in India and China such as Gandhi, Sun Yat-sen, and Jawaharlal Nehru. They were followed by a more radical generation including Mao Zedong in China, Ho Chi Minh in Vietnam, Kwame Nkrumah of Ghana, and thinkers like Frantz Fanon in Algeria and Jalal Al-i Ahmad, whose ideas inspired the Islamic Revolution in Iran after 1979.

Thus by the end of the 1910s, the anti-imperialist movement began to develop its distinctive character. Fundamentally, it combined the advocacy of the nation state with an emancipatory vision seeking to overcome – though sometimes also absorb – Social Darwinism. The vision combined socialist goals with a view of civilization that was alternative to the European conception of Enlightenment civilization. The horrors of the First World War had discredited the European colonizers' claims to civilization and “civilizing mission.” Many intellectuals East and West turned instead to indigenous traditions to formulate alternative civilizational ideals that opposed Western notions of materialism and conquest. Thus, for instance, Gandhi spoke of a self-sufficient and non-materialist Hindu culture. Sun Yat-sen promoted the peaceful path of the sage-king (*wangdao*). Later, Nkrumah would emphasize the communitarianism of Africa. However, each also sought to balance these civilizational traditions with Enlightenment goals of rationality and progress. Arguably, it could hardly have been otherwise if they were to join the global system of nation states.

Socialism, which was the other aspect of the decolonization vision, became increasingly important from the 1920s, after the Communist International turned its attention to the colonized world, and reached its height with the Vietnam War in the 1960s. While Mao Zedong and Ho Chi Minh were full-fledged revolutionaries who created socialist nation states with full state-ownership of land and the other means of production, most other anti-colonial leaders, such as Nehru, conceived of a socialist society to mitigate the stratifying effects of capitalism and implement their critique of capitalist imperialism. They developed a mixed type of economy which combined a strongly interventionist role of the state including redistributionist policies with a limited sphere of private enterprise.

The attempt to harmonize socialism (which was, of course, also a Western doctrine) with an alternative conception of civilization enabled decolonization in significant ways. It reconciled the critique of injustice in the system with identity claims for recognition in that very system. But the balance was never easy to sustain. Thus Indian modernizers had to ignore or contain Gandhi's ideas of a return to a simple peasant society. Even Frantz Fanon, who represented perhaps the most radical and anti-traditionalist voice of decolonization, struggled to reconcile elements of Islam, such as existing conceptions of womanhood, with a socialist revolution. Others like Jalal Al-i Ahmad, a one-time Marxist, turned ultimately to the model of a radical Islam. Today's China, socialist in name only, has opted to join a competitive capitalist system of nation states.

Politically, the great challenge that lay ahead of the decolonizing movement was to mobilize the hinterlands and the impoverished classes barely touched by modern ideas. For many in these communities, loyalty to the nation state was an abstraction quite removed from their everyday consciousness and the modern programs of secular society, national education, or the nuclear family were quite inimical to their conceptions of a good society – involving regional, linguistic, religious, caste, tribal, lineage solidarity – and religious life. Yet for the modernizing elites, the peasants and the “people” lived in a world that was increasingly alien and distasteful to them and the new language of modernity, historical progress, citizenship, and the like increased the gap between the two still further.

Thus the urban leadership had not only to bridge the gap between these rapidly diverging worlds, but to remake hinterland society in their own image. This image derived both from the modern humanistic conception of social reform and from the necessity to create a disciplined and obedient workforce that could power the national economy to succeed – or survive – in a world of competitive capitalism. These two tasks – to fulfill the promise of its humanistic ideals and modern citizenship and to create the conditions for international competitiveness – were often in tension with each other. To the extent that these conditions required the production of a homogenized people, there was also often a violent transformation of the lives and world views of people who were forced to adapt to a world in which the benefits to them were not always clear. Thus for instance, Gandhi even renounced the ideal of modern industrialization and advocated rural reform and national self-sufficiency. Socialists, on the other hand, renounced competitive capitalism in favor of a more equitable form of industrialization. Neither, it turned out, survived the twentieth century.



## From the Great War through the Second World War

The economic and political developments of the interwar years accelerated the pressures on empires, particularly the British Empire. After the First World War, Britain faced a serious devaluation of the pound sterling following the steep wartime debts it ran up with the United States. By the 1930s, Britain became increasingly dependent on the colonies' resources to stabilize the pound in relation to the dollar and other hard currencies and its balance of payments.<sup>2</sup> This was, however, also a time when the anti-imperialist movement in the colonies began to make increasing demands for economic and political parity. The imperialist powers sought to create economic blocs in which colonies or subordinate territories were promised self-governing status and other concessions and sometimes even constituted as nominally sovereign nation states (such as Manchukuo), although they remained militarily in thrall to the metropole. Thus decolonization was preceded by a kind of imperialism of nation states which reflected a strategic reorientation of the periphery to be part of an organic formation designed to attain or retain global supremacy for the imperial power.

But the value of the British pound sterling continued to deteriorate through World War Two and after as well. Given its dependence on colonial earnings in sterling, Britain undertook an implicit contract with several of these colonies, such as India, Malaya, and South Africa. In exchange for their export earnings, it would introduce social welfare and development programs in the colonies with the goal of preparing them for political self-governance, although not independence. A Social Welfare Advisory Committee was even set up in 1943 to advise the Colonial Office.<sup>3</sup> This implicit contract with the colonies, in most cases, worked against the interests of the colonies because Britain did not have the economic resources to introduce adequate welfare and development programs.<sup>4</sup>

Economic and political forces continued to make empire unviable for the British. The Great Depression of the 1930s had driven down agricultural

2 Allister Hinds, *Britain's Sterling Colonial Policy and Decolonization, 1939–1958* (Westport, C.T.: Greenwood Press, 2001), pp. 11, 29.

3 Kwong-leung Tang, *Colonial State and Social Policy: Social Welfare Development in Hong Kong, 1842–1997* (Lanham, MD: University Press of America, 1998), p. 50.

4 Michael Havinden and David Meredith, *Colonialism and Development: Britain and Its Tropical Colonies, 1850–1960* (London and New York: Routledge, 1993), p. 306; Stephen Constantine, *The Making of British Colonial Development Policy, 1914–1940* (London: Frank Cass, 1984), p. 276.

prices steeply and many of the colonies specializing in agricultural cash crops, including the Dutch and French colonies, witnessed great suffering. During this period political unrest and demands for independence were also working against closer integration. In other words, political self-governance and closer economic integration, the central features of the British strategy, began to militate against each other.

It was not until the 1950s, however, that Britain began to give up hope of empire. This was the decade that stretched from the independence of India in 1947 to 1957. In 1956, Gamal Abdel Nasser, the President of the Egypt who was to formulate the ideas of Arab socialism, had ordered the nationalization of the Suez Canal. An Anglo-French-Israeli coalition of forces declared war against Egypt and occupied Suez. But the new powers in the United Nations forced them to withdraw, thus enhancing the stature of Nasser and the anti-imperialist forces in the world. It also became clear during this decade that the remaining major sterling surplus colonies, Nigeria, Ivory Coast, and Malaya, were not going to be happy with self-governance in a system where the metropole still called the shots.<sup>5</sup>

The two world wars played a undeniable role in accelerating decolonization. If the First World War unleashed the discursive and political conditions for the anti-imperialist movement to coalesce, and the interwar years destroyed the economic rationale of empire, the Second World War pretty much destroyed the credibility of the imperialist nation state system as it existed till then. The spectacle of the old colonial powers being overrun by the Axis forces in North Africa and particularly by Japan in Southeast Asia (threatening British India), the establishment of formally independent states in Southeast Asia under the rhetoric of pan-Asianism, the prominence of leaders like Sukarno and the Burmese leader U Nu who would lead nationalist movements against the returning colonial powers in the Japanese dominated wartime governments, and the further rise of the United States and Soviet Union, made eventual decolonization a matter of time in most parts of the world.

We can summarize the basic phases of the Afro-Asian decolonization movement here. Although there were several developments in the period before the Second World War, such as the end of the British protectorate in Afghanistan in 1919, Egypt in 1922, and the end of its mandate over Iraq in 1932, Britain continued to station troops and exercise political influence over these territories. The first phase of the transfer of sovereign power began

<sup>5</sup> Hinds, *Britain's Sterling Colonial Policy*, pp. 146, 197.

with the Second World War when the Allied Powers recognized full sovereignty of the Kuomintang (KMT) regime in China by abrogating the unequal treaties under which China had been reduced to a semi-colony. The US Congress ended US extraterritorial rights in China in 1943. But China only regained full sovereignty after the surrender of Japan in 1945 and the removal of the Japanese military from various parts of China. China also gained a seat in the United Nations and its Security Council, which was transferred from the representative of the Republic of China in Taiwan to the People's Republic in 1971.

The Japanese surrender in 1945 also led to independence in Korea and various parts of Southeast Asia, including the independence of the Philippines from the United States in 1946. But the European colonial powers in remaining Southeast Asia sought to regain their colonies, leading most famously to the French wars in Indochina. The United States took over the French mantle once it became clear that Vietnam would otherwise be dominated by communism, and hence the anti-colonial war became entangled in the politics of the Cold War, discussed below. So too did Korea, which became divided into a Soviet- and China-supported North and a United States- and Japan-supported South Korea. The superpowers fought a proxy war through the two Koreas between 1950 and 1953, and tensions between the two sides last until this day.

By 1947–1948, Great Britain withdrew from its South Asian empire including India, Ceylon, and Burma and relinquished its protectorate and mandated power in Jordan and Palestine. Some scholars have argued that the hurried departure of the imperialist powers caused them to “divide and quit,” leaving behind furious and festering conflicts between opposed contenders to the right to rule. This applies to places in the Middle East, Indochina, and especially the Indian subcontinent, which was torn by the partition of India and Pakistan in 1947 during which over a million people were killed as Hindus and Muslims were forced or driven to evacuate their homelands for alien lands ruled by their new nation states.<sup>6</sup>

In the 1950s and 1960s, many African, Asian, and Middle Eastern colonies and dependencies gained their independence from Britain, France, Portugal, and Belgium. Anti-colonial resistance had developed in Sub-Saharan Africa long before the Second World War, but these activities began to cohere into distinct movements in the post-Second World War era. In South and East Africa, resistance was often directed against the white settler colonialists who

6 Radha Kumar, “The troubled history of partition,” in Duara, ed., *Decolonization*, pp. 162–175.

appropriated communal land and imposed heavy taxes on the populace. Kenneth Kaunda had led the Zambian movement of independence modeled on the Gandhian politics of non-violence and constitutional reform. But the intransigence of racist settler colonialists in Southern Rhodesia (now Zimbabwe) led him in the mid-1960s to renounce non-violence and support armed struggle as did several other colonies in the region.<sup>7</sup>

In Kenya, resistance to settler domination culminated in the Mau Mau rebellion of the 1950s which was crushed mercilessly, but is remembered as the most powerful symbol of armed resistance to imperialism in the region. In some ways, the Mau Mau also combined the uneasy alliance of socialist nationalism with more local and traditionalist expressions of resistance, although there was a very strong presence of women in the Mau Mau resistance.<sup>8</sup> In West Africa, modern labor movements in cities had become quite developed by the immediate postwar era and represented an important threat to colonial authorities. Nationalist and Pan-Africanist leaders like Guinea's Ahmed Sékou Touré and Gold Coast's (later to become Ghana) Kwame Nkrumah built their movements significantly upon these workers' activism and organizations.<sup>9</sup>

Other than the Vietnam War, which was now part of the hot Cold War, this phase of the decolonization movement was dramatized most visibly by the Algerian War (1954–1962). Like the Vietnam War, this was a complex affair with several different parties, including the *pièds-noirs* or the European settlers in Algeria. The powerful symbolism and memories of the war in France and Algeria have been distilled by the writings and role of Frantz Fanon (Fig. 15.1). Fanon (1925–1961) was born in Martinique, educated in France, and worked as a psychiatrist in Algeria. He became a leader of the Algerian National Front and wrote several books, the most well-known of which is *The Wretched of the Earth* (1961). Fanon is regarded as one of the most important thinkers of the decolonization movement largely because of his psychological understanding of the effects of colonialism on both colonizer and colonized and his deployment of counter-colonial conceptions of hybridity and creolism. He was also sensitive to the transition from colonialism to the neo-colonialism of the United States, and advocated a revolutionary

7 Robert J. Young, *Postcolonialism: An Historical Introduction* (Oxford: Blackwell, 2001), pp. 250–251.

8 Ibid. p. 366.

9 Frederick Cooper, "The dialectics of decolonization: nationalism and labour movements in post-war French Africa," in Duara, ed., *Decolonization*, pp. 218–238.

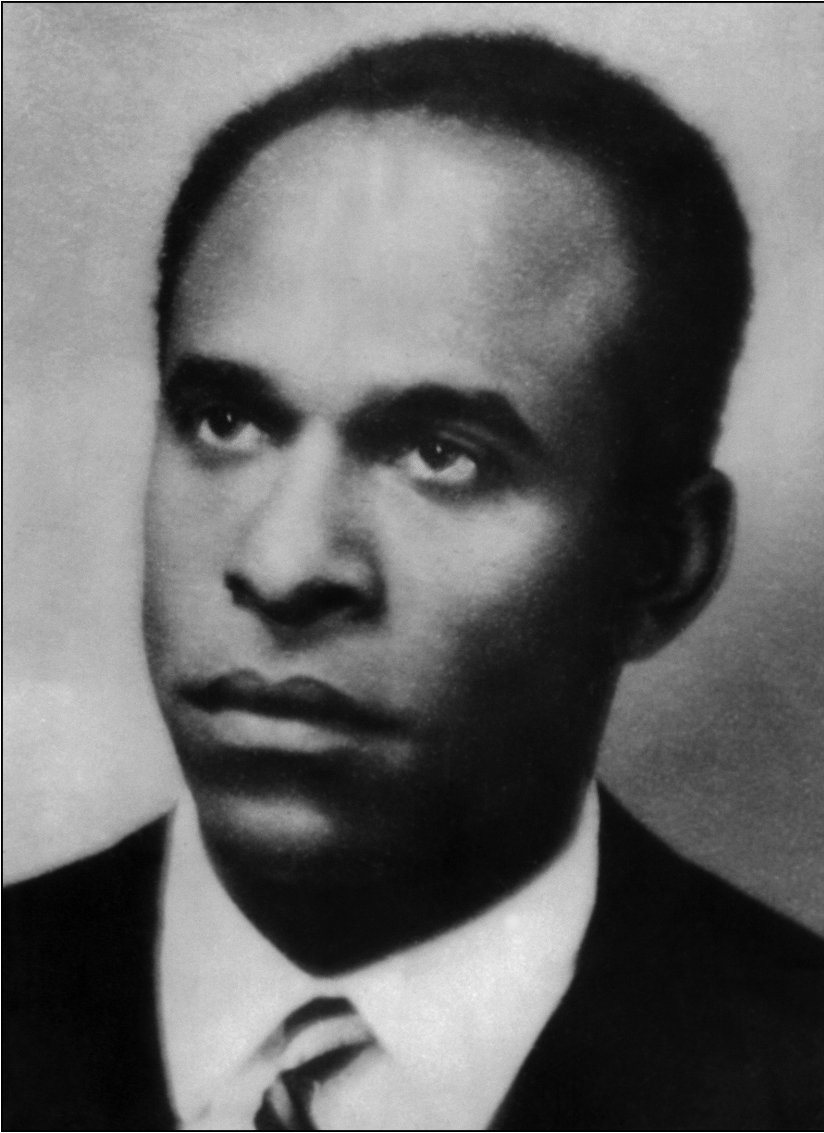


Figure 15.1 Portrait of the psychiatrist and revolutionary Frantz Fanon (AFP/Getty Images)



Figure 15.2 Mahatma Gandhi on his famous March to the Sea to make salt, in defiance of the British salt monopoly, in India during 1930  
(© Bettmann/Corbis)

anti-colonial violence that would generate “new men” even as it destroyed the colonial psyche.

Elaborating upon some of the same themes regarding the colonization of the mind, Mahatma Gandhi (Fig. 15.2) was perhaps the other great thinker and leader of the decolonization movement. Gandhi sought to recover older subjectivities and ideas that colonialism had destroyed among both colonized and colonizer, for instance of androgyny which he asserted had been destroyed by colonial attitudes of hyper-masculinity. However, Gandhi maintained a principled opposition to violence. Gandhi’s philosophy and strategy of decolonization began with reconstructing the self of the colonized (and colonizer). *Swaraj* was not only self-rule referring to political independence, but self-mastery over desires and irrationalities. By engaging in *satyagraha* or “truth force” the individual and the collective – through such strategies as civil disobedience – would be able to triumph over an unjust political power.

The various nationalist movements combined different strategies or methods of force and violence with education and peaceful mobilization to achieve their goals. Thus leaders like Nkrumah in Ghana and Gandhi in



India were able to achieve mass mobilization relatively peacefully, but in the absence of significant land reform or economic integration, the class and rural–urban gap persisted. Revolutionary nationalists like Mao Zedong or Ho Chi Minh succeeded in restructuring the inequities of rural society, but often at the cost of massive violence. Other nationalist movements, like that led by Sukarno in Indonesia, were prevented by the structure of Dutch colonial control from achieving any significant rural mobilization.

## Decolonization and the Cold War

In many ways, the establishment of the United Nations and its ideal of national self-determination operating within an equally ideal co-operative system of nation states represented the goals of the decolonization movement. Without unduly gainsaying the achievements of the United Nations in many dimensions of national development, the real world order, particularly in the first forty years after its establishment, was, however, shaped much more by superpower tensions and rivalries which affected the nature of the decolonizing politics and politics.

The superpower rivalry between the Soviet Union and the United States (1947–1991), and later affected by the rise of China as an autonomous nuclear power, came to be known famously as the era of the Cold War. The Cold War order ran parallel and was much more influential than the United Nations world order. The superpowers and their relationships with the newly independent or decolonizing postwar states reflected some of the same asymmetrical power relationships that characterized those between imperialist and colonial or semi-colonial states, particularly during the inter-war years. The client-states of these superpowers were formally constituted or superficially equipped as sovereign nation states, but they were militarily dependent upon the superpower – just as they had been in the military thrall of colonial powers. While there were many significant differences between subordination under colonial and Cold War powers, let us look at some of the similarities.

The basic similarity arose from the fact that both imperialist and Cold War superpowers were nation states involved in a competitive system vying for global dominance over other people and resources. While the dominance of ideology in the Cold War – pitting socialism and social justice versus capitalism and liberal freedoms – gave the superpowers ideals to strive for and mobilize around, practically, these powers frequently rode roughshod over those ideals for the sake of national and imperial interests. There were also

major differences. Superpowers could not deny the power of mobilized nationalisms in the decolonizing states and they frequently worked with their nationalist allies for development in the client states, even while they benefited economically from these new nations. Moreover, because there were only two superpowers and because the new states had more autonomy than the fully dominated colonies, they could sometimes play one side off against the other, as for instance Ghana, Egypt, and to a lesser extent, India demonstrated.

Indeed, the Cold War order was more continuous with the efforts and experiments conducted by the late-comer imperialist Japan in its Asian empire. Partly because nationalism was already awakened in East Asia and partly because of Japan's pan-Asianist ideology and sympathies, Japanese militarists during the 1930s claimed to be merely the leader of a federation of Asian nations. They declared their commitment to overthrow Western domination of Asian societies and cultures for the sake of Asia. Japan's pan-Asianist imperialist policies began with the establishment of the puppet state of Manchukuo (1932–1945) in northeast China, a vast state four times the land area of Japan and with a population of about 40 million in the 1940s. Faced with a powerful Chinese nationalism on the mainland, Japan found it more efficient to foster modern and *indirectly* controlled institutions in the dependency. The goal was to control it by dominating the institutions of mobilization, such as banks, transportation infrastructure, political institutions (like political parties), and most of all, of course, the military. During the Pacific War, Japan extended this strategy with the Greater East Asia Co-Prosperity Sphere of Asian societies that it claimed to liberate from Western powers under a new anti-imperialist alliance. These temporarily “liberated” societies, however, quickly realized that they were to be subordinated to Japanese military, economic, and strategic goals, and racist attitudes.<sup>10</sup>

As the upholders of the post- World War Two and post-colonial world order enshrined in the United Nations, both the Soviet Union and the United States were of course champions of national self-determination. Even before their revolution in 1917, the Bolsheviks had come out in support of the policy of national self-determination of peoples in the world and particularly for the myriad peoples of the Tsarist Empire. While they perceived the national revolution to be almost as important, perhaps, as the class revolution, the Russian communist state was also aware of the potential of the rhetoric of

10 See Prasenjit Duara, *Sovereignty and Authenticity: Manchukuo and the East Asian Modern* (Lanham, MD: Rowman & Littlefield, 2003).



national self-determination to be utilized to keep the erstwhile empire within the control of the new Soviet nation state.

In some ways, the breakdown of the Soviet “empire” within the Tsarist territories and in East Europe and Asia that began in the late 1980s could be arguably treated as the extension of the decolonization project that began earlier in the century. That, however, creates a more complex problematique for understanding decolonization than we wish to develop here. The reason I bring up the Soviet case is to indicate the attitude and policies of a Cold War superpower towards national self-determination, an approach that also influenced its attitude towards the new nations. Both the Soviet Union and the United States were capable of exercising their domination of these newly independent states even while they supported the rhetoric and institutions of their national development. Although the Soviet policy boomeranged, it indicates how this domination could be achieved for a period.

The goals of the Bolsheviks were to grant the smaller communities of the former Tsarist Empire, such as Ukrainians and Uzbeks, “nationhood,” partly in order to facilitate centralized rule by defining the categories of identity and by controlling the party structure. The idea was to ultimately subordinate these national loyalties to “proletarian” interests, that is to the Communist parties in the non-Russian territories. They sought to contain, control, and even harness different sources of dissent by creating national-territorial structures of administrative control and fostering loyal national elites through the Party. The aim was to make the peripheral peoples into nationalities, but also into a Soviet *narod* (people) where they would be merged together under communism. Interestingly, this strategy ultimately backfired: the Soviets did a great deal to institutionalize territorial nationhood and ethnic nationality as fundamental categories of political and personal understanding; but they did not build the idea and loyalty to the Soviet state very strongly. As a result, at the end of the Cold War during the 1980s, when economic crises and political reforms (*glasnost*) began to fatally weaken the Soviet state, the peripheral nationalities were able to achieve their independence from the Russian national core.<sup>11</sup>

In the United States, the attitude towards the new nations was by no means identical to the Soviet configuration, but there were distinct and radical changes in the attitude of the superpower towards the new nations,

<sup>11</sup> Francine Hirsch, *Empire of Nations: Ethnographic Knowledge and the Making of the Soviet Union* (Ithaca, NY: Cornell University Press, 2005), pp. 6–8.

in great part shaped by the imperatives of the Cold War and the appeal of the Soviet Union and socialism among these nations.

Historically the United States, which had also often championed anti-colonialism, had a paternalistic attitude towards smaller and weaker nations. During the 1920s, for instance, the United States sought to develop informal control over Central American countries, especially as it encountered anti-US nationalism in the region. Officials, diplomats, and business groups maintained indirect US domination through control of banking, communication facilities, investments in natural resources, and training of elites in American-style constitutions, “free elections,” and orthodox business ideas. As Secretary of the Interior Franklin Lane wrote in 1922, “What a people hold they hold as trustees for the world . . . It is good American practice. The Monroe Doctrine is an expression of it . . . That is why we are talking of backward peoples and recognizing for them another law than that of self-determination, a limited law of self-determination, a leading-string law.”<sup>12</sup> The threat and reality of military intervention remained close at hand and the United States repeatedly intervened militarily in these countries both before and after the Second World War.

The United States distanced itself from European racial imperialism, but it continued to erect racist barriers to citizenship – for instance against Asian immigrants – until 1942. Moreover, the decolonizing world noted a distinct ambivalence of the United States towards the ability of darker-skinned people to govern themselves through the early postwar decades. Indeed, the United States sometimes became implicated in efforts by European powers to restore their imperial claims in the colonies.

In the era of United Nations multinationalism, however, US attitudes towards colonialism and race underwent an important change. The postwar attitudes developed in the context of the rivalry with the Soviet Union for the allegiance of the new decolonizing nations. It was the Cold War itself that induced many of these changes. Christina Klein has shown in her exploration of “middlebrow culture” in the United States how the fear of the loss of Asia to communism led to radical changes, curiously, in the image of American nationhood as premised upon a multicultural society. She uses the idea of cultural hegemony to show how representations of Asia and the Pacific reinforced the “Cold War consensus” which supported US expansion of

<sup>12</sup> Quoted in Robert Freeman Smith, “Republican policy and the Pax Americana, 1921–1932,” in William Appleman Williams, ed., *From Colony to Empire: Essays in the History of American Foreign Relations* (New York: John Wiley, 1972), pp. 243–275; quote on p. 271.

power across the world through the 1950s. Through these representations, “structures of feeling” were created, which worked to channel ideological configurations into the field of emotions, experience, and consciousness of ordinary people. What Klein calls “Cold War Orientalism” did not merely seek to contain communism; it sought to sentimentally integrate Americans with Orientals who had not yet been made communist, both within the United States and internationally.<sup>13</sup>

The image of the United States as “the nation of nations” is exemplified by the enormously successful historical novel by James Michener (1959) called *Hawaii*. As a land of diverse cultures, Hawai’i represented the model of racial utopia with its flows and mingling of Polynesian, Japanese, Chinese, and New England whites. It is perhaps not too surprising that the Civil Rights Movement which had begun earlier was given a major boost in this environment and also took inspiration from the decolonizing movement. At the same time, the foremost American designers became deeply involved with promoting the idea of the “Asian Modern.” Ceramic, wooden, woven grass, bamboo, and lacquered craftware were adapted to American tastes and designed to create an “international modernism” in the 1950s and 1960s, “which suited the American taste for friendly comfort and distanced itself from the cold European modernist style.”<sup>14</sup>

This new-found appreciation for non-Western and non-communist nations and cultures, however, continued to be channeled through the paternalistic designs of enlightenment for the unfortunate and child-like Asians and other backward peoples. Klein notes that the image of Asians as metaphorical children to American parents, as well as the postwar phenomenon of adoption of many Asian children pioneered by Pearl Buck’s organization, justified American intervention in Asia. Klein describes a discourse in which the world is normatively peopled not by inherently limited races or cultures, but by a “family of nations.”<sup>15</sup>

The change in global rhetoric and attitude towards the colonized, semi-colonized, and exploited non-Western world, especially among the Cold War superpowers, was doubtless a triumph of anti-colonialism globally. But the rhetoric and developmental paternalism of the superpowers tended to conceal new types of domination of the new states.

13 Christina Klein, *Cold War Orientalism: Asia in the Middlebrow Imagination, 1945–1961* (Berkeley, CA: University of California Press, 2003), pp. 7–16.

14 Yuko Kikuchi, “Russel Wright and Japan: bridging Japonisme and good design through craft,” *Journal of Modern Craft* 1:3 (2008), 357–382; quote on 372.

15 Klein, *Cold War Orientalism*, pp. 253–263.

The equilibrium of Cold War rivalry tended to congeal political structures of nation states organized in the two camps. The territorial boundaries and institutional arrangements established to the superpower's advantage in the new nation states were often backed militarily by the superpowers. The latter sought to preserve or acquiesce in the dominant groups that had formed the client nation state, often because any change or destabilization might strengthen the other side. Thus these new states were frequently built by unpopular regimes or dominant ethnic groups or simply military groups which suppressed old and new aspirations.

The consequence of this pattern of Cold War order was that the kind of nation state building that took place among the decolonizing states was dominated by militarism and civil war. Between 1960 and 1987, per capita military expenditure in the world increased by almost 150 percent, while GNP per capita rose about 60 percent. In a dozen rich states, including the USSR, the military budget declined from 6.9 percent of GNP in 1960 to 5.5 percent in 1984. But in the decolonizing world, this percentage rose from 3.6 to 5.6 percent, indicating a larger expenditure from much smaller incomes. Even in the 1980s, 40 percent of third world states, not including Latin America, were military states, and civil war led to mass refugee movements and took the greatest toll on human life. Superpower support and involvement, particularly through the transfer or sale of arms, in exchange for resources and political support in the Cold War, was evidently among the most important factors behind militarization.<sup>16</sup>

In many parts of Asia and Africa, the superpowers became involved with the different sides of the anti-colonial struggles that had developed in the first half of the twentieth century. The prime example is the Vietnam War, in which, conservatively, over a million Vietnamese were killed, and in which the United States spent US\$111 billion between 1965 and 1975 (equivalent to US\$686 billion in 2008).<sup>17</sup> The principal socialist power backing the Vietnamese (until around 1969) was not the USSR, but the People's Republic of China. Between 1965 and 1969, China provided considerable support to the Vietnamese, dispatching over 300,000 engineering and anti-aircraft troops to North Vietnam. China had also been by far the more active socialist power

16 Charles Tilly, *Coercion, Capital, and European States, AD 990–1992* (Oxford: Blackwell, 1992), pp. 209, 221. For some examples from Southeast Asia, see Anthony Reid, *Imperial Alchemy: Nationalism and Political Identity in Southeast Asia* (Cambridge University Press, 2009).

17 Stephen Daggett, "Costs of major U.S. wars," CRS Report for Congress, Order Code RS22926, July 24, 2008, CRS-2, <http://fpc.state.gov/documents/organization/108054.pdf>.

in the Korean War between 1950 and 1953.<sup>18</sup> As for the United States, the Vietnam War strained its financial and moral power and contributed to the relative weakening of US economic strength vis-à-vis Japan and Europe. By and large the Cold War had a deeply divisive impact on the decolonizing world, weakening what counter-hegemonic potential it possessed.

The newly independent nations were thus born into a deeply divided world in which they were often forced to take sides in order to survive. In East Asia, the independence of China, Korea, and many Southeast Asian states from Japan and European colonial states became quickly entangled in the Cold War divisions. This resulted in “hot” and enormously destructive wars in Korea and Indochina and heavy militarization in the rest of East Asia. The conditions of this division, as I have indicated, tended to freeze regimes that often had not developed popular support but were backed by the military support afforded by the superpower. Thus even while the United States and its allies championed democracy and freedom as their goals, more often than not in the developing world they ended up supporting undemocratic military regimes, dictators, and monarchies alienated from the aspirations of ordinary people. Among US client states, the popular (*minjung*) movement in Korea took the lead in 1979 by opposing the Park Chung-hee military regime and contributing to its demise. Subsequently, other democratization movements also emerged in recently decolonized societies of Southeast Asia, such as the Philippines, where President Ferdinand Marcos had established martial law in 1972, Taiwan (1987), and Indonesia (1998).

The frequent intervention of Western powers to protect their interests in Africa, the Middle East, and Southeast Asia (in addition to US operations in Latin America) polarized and radicalized large segments of the population in these societies. The most dramatic intervention in Africa took place after Congo won its independence from Belgium in 1960. Patrice Lumumba, who tried to build an independent nation state on the socialist model, and to align his nation with the Soviet Union, was removed from power, and was finally murdered by his opponents backed militarily by the Europeans and the Kennedy administration. Congo became a vast client state of the United States, with huge investments in its mineral resources. Similarly the coup directed against Sukarno and the communists in Indonesia, where hundreds of thousands of people were killed in 1965, had the tacit backing of the CIA.<sup>19</sup>

18 Chen Jian, *Mao's China and the Cold War* (Chapel Hill, NC: University of North Carolina Press, 2001), p. 229.

19 Jussi M. Hanhimäki and Odd Arne Westad, eds., *The Cold War: A History in Documents and Eyewitness Accounts* (Oxford University Press, 2003), p. 167.

A revealing instance of how a process of decolonization was aborted significantly by the Cold War is the case of Pakistan. Hamza Alavi has shown that the strong military alliance with Pakistan, including a highly secretive US military base in Pakistan near the Persian Gulf, did not, contrary to Indian views, have to do with its rivalry with India. Rather it was part of a new Anglo-American strategy, starting in the early 1950s, for the defence of oil interests in the Gulf against both Soviet influence and radical nationalism in the region. The extent of American involvement with the Pakistani military was so great that it completely marginalized the civilian government, even before the first military coup in that country in 1959. The US–Pakistan relationship and the deteriorating relations between India and China, as well as between the Soviet Union and China, led India, despite its official non-aligned stand, to tilt towards the Soviet Union. It received considerable military and industrial support from the latter. Although the United States has been careful not to overtly support Pakistan in the wars against India, it is nonetheless ironic that it found itself allied with the wrong side when it came to democracy and the national aspirations of Bangladeshis.<sup>20</sup> The extensive militarization of Pakistani society and the consequent weakness of democratic and secular forces – which were the ideals of its founders – continue to this day.

Soviet intervention in the newly independent states of Asia and Africa was not as extensive or committed until 1979 when it became mired in the fatal occupation of Afghanistan. The Soviet Union was more occupied with instabilities in its own camp requiring extended periods of military occupation in parts of Eastern Europe such as Poland and Romania (till 1956 and 1958, respectively) and, more famously, with the Hungarian revolution in 1956 and Czechoslovakia's Prague Spring in 1968. While the Soviets supported radical movements in Africa, Latin America, and Asia, these were largely home-grown Marxist or leftist movements which sought the support of the Soviet bloc.

Early Soviet leaders were not quite convinced that revolution could be truly successful in these societies, even though it was important for Soviet superpower status to be influential in the emerging nation states and utilize them for the goals of Soviet socialism. Communist victory in Vietnam, among other developments in the 1970s, however, emboldened the Soviet leadership to intervene more actively in places such as Ethiopia, Angola, and

20 Hamza Alavi, "The origins and significance of the Pakistan–US military alliance," in <http://ourworld.compuserve.com/homepages/sangat/HAMZA.htm>.

finally, in Afghanistan from 1979 to 1989. Afghanistan also represented the spread of Islamist radicalism as an alternative to the ideologies of socialism and capitalism and to the legitimacy of the national unit as the boundary of Cold War politics.<sup>21</sup>

### The legacy of decolonization

But if many new nations were unable to fulfill their desires for full sovereignty or their people's aspirations for truly representative institutions because of their subordination to the Cold War order, they were also hampered by the competitive nation state system which they elected to enter. I believe this is clear from the fate of the non-aligned movement which many of them championed in the 1950s, 1960s, and later.

We have referred to the celebratory high point of this movement in the Bandung Conference of Afro-Asian solidarity, a meeting of the representatives of twenty-nine new nations of Asia and Africa, held in Bandung, Indonesia in 1955, fifty years after the Russo-Japanese war signaled the beginnings of pan-Asianism. The conference aimed to express solidarity against imperialism and racism, and promote economic and cultural co-operation among these nations. China, India, and Indonesia were key players in the meeting. The conference finally led to the non-aligned movement in 1961, a wider force led by Yugoslavia's Tito, Nehru, and Nasser, in which participants avowed their distance from the two superpowers – aligning themselves neither with the United States nor the Soviet Union (Fig. 15.3).

However, conflicts developed among these non-aligned nations and the non-aligned movement did not make the desired impact its leaders had wanted. Some of the conflicts that developed among these nations were a consequence of the Cold War; neither neutrality nor solidarity was much in evidence among the decolonized states. Other territorial disputes and resource wars resulted from older colonial policies and claims. Thus, for instance, the border war between India and China in 1962 was a consequence of a disputed colonial period demarcation of the border between the two nations called the McMahon Line. But the persistence of the rivalry between the two nations also has to do with competition over resources and influence in the world. Moreover, conflicts between Iran and Iraq (1980–1988), India and Pakistan (1947, 1965, 1971), Indonesia and Malaysia (1962–1966), China and

21 Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge University Press, 2007), chapters 7 and 8.





Figure 15.3 Gamal Abdel Nasser (CL) of Egypt talking with Jawaharlal Nehru (CR) of India during the Bandung Conference  
(Howard Sochurek/The LIFE Picture Collection/Getty Images)

Vietnam (1979), and Libya and Egypt (1977), among others, indicate that international conflicts among decolonizing nations have not been rare.

But while we may argue that the Cold War and the dynamics of national competition may have undermined the decolonizing movement, it is also true that the decolonizing ideals played a role in ending the Cold War. I have discussed this issue at some length elsewhere, so I will just refer to it briefly in conclusion here. First, it is now clear that China's role was critical to the end of the Cold War although this was not necessarily deliberate. After the split between the Soviet Union and China, China itself became a potential superpower when it acquired nuclear capacity in 1964. As the Sino-Soviet relationship continued to deteriorate, especially during the Cultural Revolution of the late 1960s – hovering, the Chinese believed, on the brink of nuclear war – the United States also suffered great losses in the Vietnam War. The United States saw the opportunity to neutralize China in what had developed as a three-sided Cold War. In brief, the neutralization and even support of China that resulted from the famous US-China rapprochement in 1972 led to an imbalance and pressure upon the Soviet Union. Meanwhile the Soviet Union, which had become mired in the Afghan war from 1979, was outspent militarily by the Reagan regime which also supported the Chinese nuclear



military program.<sup>22</sup> The critical factor here is the Chinese autonomy from the Soviet Union which was made possible by Mao and the party's commitment to the goals of the communist revolution.

A second factor contributing to the end of the Cold War was Islamism. From the early 1980s the *mujahidin*, militarily supported by the United States and its Muslim allies, played the major role in driving out the Soviets from Afghanistan and bringing the Taliban to power. The *mujahidin*, in turn, had been encouraged and strengthened by the success of the Islamic Revolution in Iran in 1979. The rise of Islamism – whose advocates were denied the right to mobilize in the client states of both superpowers – represented dissatisfaction with the Cold War options of capitalist and socialist modernity.<sup>23</sup> Not a few of the Islamic thinkers of the period of decolonization had begun as socialists or modernizing reformers, but with the growing disenchantment of the Cold War options, they began to integrate the religious and redemptive claims of their religious tradition into their demands for full decolonization. While the combination of Islamic ideas and revolutionary nationalist ones may seem to some today to be unusual if not contradictory, during the 1950s and 1960s, many leaders and thinkers found them to be compatible. Indeed, a report from the *Economist* on November 3, 1955, noted that Chinese communism under Mao and Islamic ideals were coming together in their efforts to liberate the world.

One such thinker who represented the convergence and subsequent disillusionment was Jalal Al-i Ahmad (1923–1969), a Marxist turned Islamist in Iran who died a full decade before the 1979 Iranian Revolution but whose work became widely read before and during the revolution. In Al-i Ahmad's view, the socialist camp was no less materialist and greedy than capitalist colonizers and represented "would-be corporate colonists" who could sit quite comfortably at the same table as their capitalist counterparts. What offended him particularly were the hypocritical designs of enlightenment that stripped a people of their culture and identity. "Thus only we in our Islamic totality, formal and real, obstructed the spread (through colonialism,

22 Shirley Kan, *U.S.–China Military Contacts: Issues for Congress*. Updated May 10, 2005, CRS Report for Congress, Congressional Research Service, The Library of Congress, Washington, D.C. Order Code RL32496/, <http://fpc.state.gov/documents/organization/48835.pdf>. For effects of the arms race and the Strategic Defense Initiative on the Soviet Union, see Eric Ringmar, "The recognition game: Soviet Russia against the West," *Cooperation and Conflict* 37:2 (2002), 115–136; 130. See also Hanhimäki and Westad, eds., *The Cold War*, pp. 274–275.

23 Steve Coll, *Ghost Wars: The Secret History of the CIA, Afghanistan, and Bin Laden, from the Soviet Invasion to September 10, 2001* (New York: Penguin, 2004).

effectively equivalent to Christianity) of European civilization, that is, the opening of new markets to the West's industries."<sup>24</sup> In the decolonization period, this religious call had been integrated into the decolonization struggle. Today Islamism has become much more autonomous and has even turned against the system of nation states.

Both Chinese revolutionary energy and Islamism emerged from their struggles against imperialism and drew their confidence and strength from these paths, whether they were progressive or tradition-directed. They could be said to be the most vigorous nodes in the ideology of decolonization that we have described above. With the rapid spread of global capitalism in the post-Cold War era, the national form taken by these societies has adapted to respond largely to the requirements of global capitalist competitiveness, especially in Asia where social stratification has once again grown. But even as the hybrid socialist-civilizational vision of decolonization has been forgotten in the mainstream of these decolonizing societies, both revolutionary Maoism and Islamic radicalism have continued to reverberate among the poor in the world. Apart from these extreme options, however, we may ask if there were also other ideals and experiments undertaken in the capacious decolonization movement that could be adapted to the demands for justice in these times.

### Further reading

- Adas, Michael, Peter N. Stearns, and Stuart B. Schwartz. *Turbulent Passage: A Global History of the Twentieth Century*. New York: Longman, 2003.
- Anderson, Benedict. *Imagined Communities: Reflections on the Origins and Spread of Nationalism*. London: Verso, 1991.
- Betts, Raymond F. *Decolonization*. London and New York: Routledge, 1998.
- Chatterjee, Partha. *The Nation and Its Fragments: Colonial and Postcolonial Histories*. Princeton University Press, 1993.
- Cooper, Frederick. *Colonialism in Question: Theory, Knowledge, History*. Berkeley, CA: University of California Press, 2005.
- Duara, Prasenjit. "The discourse of civilization and pan-Asianism." *Journal of World History* 12:1 (March 2001), 99–130.
- Duara, Prasenjit, ed. *Decolonization: Perspectives from Now and Then*. London: Routledge, 2003.
- Fanon, Frantz. *Les damnés de la terre [The Wretched of the Earth]*. With a Preface by Jean-Paul Sartre. Paris: François Maspero, 1961.

24 Jalal Al-i Ahmad, "Diagnosing an illness," in Duara, ed., *Decolonization*, pp. 56–63; quotation from p. 62.

- Gandhi, Mohandas K. *"Hind Swaraj" and Other Writings*, ed. Anthony J. Parel. Cambridge University Press, 1997.
- Mao Zedong, "On New Democracy" (January 15, 1940). In Timothy Cheek, *Mao Zedong and China's Revolution: A Brief History with Documents*. New York: Bedford/St. Martin's Press, 2002, pp. 76–111.
- Marshall, Bruce D. *The French Colonial Myth and Constitution-making in the Fourth Republic*. New Haven, CT, and London: Yale University Press, 1973.

# Genocide

MARK LEVENE

## The problem of genocide

The one thing one can say with certainty about the term genocide is that it has come into ubiquitous and general usage in a matter of decades. By contrast, despite the rising levels of environmental destruction and species' extinction, 'ecocide' has had only limited purchase. And, again, despite the ongoing possibility of humankind's universal extermination by way of nuclear Armageddon, the concept of 'omnicide' is even more remote from popular consciousness.

Not so genocide. While scholars of the subject continue to vigorously dispute with one another as to how it should be defined, not just a Western but an increasingly global public seem to know what it signifies, however rough and ready their conception. Is this because the mass murder of ethnic or national communities, perhaps over and above recognised warfare, is something to which they can particularly relate as a significant aspect of recent or contemporary history? Or might it involve an acknowledgement of the extirpation of whole interrelated tribes or peoples – implied in the *genos* in genocide – far back into the civilisational record? Then, again, has genocide become simply a short-hand for proclaiming a horror at some profanation or abuse of the things we hold most dear?

The place to turn for clarification, in the first instance, might be to the individual who coined the term. Raphael Lemkin grew to adulthood in a reconstituted state of Poland. A leading practitioner of international law, in 1933 Lemkin expounded in a League of Nations legal forum on the need for 'Barbarity' and 'Vandalism' to be incorporated as crimes *delicta juris gentium* – that is, offences against the law of nations, and to which universal jurisdiction would apply. We might note the wider context of Lemkin's proposition and, perhaps, the reason for its initial failure. Lemkin would have been acutely

aware of not just the marginalisation but the pronounced vulnerability of what had come to be called 'minority' groups within the new self-proclaimed nation states of 'the New Europe'. A Minorities Treaty framework inaugurated at the Paris Peace Conference in 1919 claimed to protect their cultural and linguistic rights under League aegis but Lemkin, as a member of a supranational Jewish group – for which the Treaties were most keenly intended – recognised the formula's inadequacy in instances where such 'collectivities' came under immediate and/or sustained physical attack on their persons or their culture. Implicitly, Lemkin was putting his finger on a consequence of, arguably, the major, long-lasting world-historical change of the Great War: the drive towards culturally homogeneous national states in place of historically multi-ethnic empires. In a specifically European or near-European context, the ascendancy of such states in place of Ottoman, Russian, Austrian and in part German predecessors threw into relief the ongoing existence of diverse ethnic and religious groups who did not 'fit' the national self-image, or, possibly worse, by their real or perceived behaviour, disrupted the nationalising-cum-developmental agendas of the new or reformulated polities. Even the post-revolution Soviet 'state of nations' was one in practice increasingly dominated by its Russian centre. For Lemkin the nation and national self-determination were a *good* thing. What, from the 1930s, he was waving to 'the international community' was the potentiality of the nation state directly murdering or suffocating out of existence what in his understanding were 'national cultures' which lacked the security, desire or wherewithal to create their own sovereign polities.

To be sure, Lemkin's emerging conception of genocide begs many definitional questions. For instance, in his first public airing of the term in his seminal 1944 *Axis Rule in Occupied Europe*, he describes cases where Nazi attacks on specific national groups involved 'a coordinated plan of different actions' aimed at destroying the 'essential foundations of the life' of those groups, with the ultimate purpose of their annihilation – *as groups*.<sup>1</sup> Implicitly, if not explicitly, this would imply a self-identified victim group coherence, even an ascription of some fixed, primordial existence. Empirical observation, however, might suggest otherwise. The Nazis, for instance, claimed to *know* Jews as a single racial entity and set out to destroy them as such. Yet in practice by the mid-twentieth century a ubiquitous European Jewish population lacked commonly binding cultural, religious, ethnic, national, let alone

1 Raphael Lemkin, *Axis Rule in Occupied Europe* (Washington, DC: Carnegie Endowment for International Peace, 1944), p. 79.

biological characteristics. This might more broadly suggest that identification of an aggregate population as some integral community (national or otherwise) is a matter of the perception of the perpetrators in cases of genocide, and not necessarily one, or at least the same one, shared by those who are their victims. One might go further and argue that the destruction of groups such as the 'kulaks', or Vendéans referred to below, suggests that genocide in practice may have little or nothing to do with the victims' *actual* communal attributes but rather is a function of the manner in which a regime chooses to identify people from a geographic region, or approximate social grouping, as an alleged *ethnic-like*, collective threat to wider state or society. That said, one would want to note that something of Lemkin's original formulation carried through into the Convention on the Prevention and Punishment of the Crime of Genocide as adopted by the United Nations in 1948. A tribute in itself to Lemkin's persistent, often one-man advocacy for this new instrument of international law, it describes genocide as 'acts committed with intent to destroy, in whole, or in part, a national, ethnical, racial or religious group'.<sup>2</sup>

What became universal acclamation to the principle, however, did not translate into a universal imperative to 'outlaw' genocide as Lemkin had sought. At stake was something more than the drafters' debates in 1946–1948, and proposed emendations thereafter for a more elastic interpretation of what might constitute a 'group'. The redundancy of the Convention, or more precisely the repeated unwillingness by UN members to invoke it in cases of its violation through to the 1990s, had much more at root to do with the *raison d'être* of the nation state *qua* modern sovereign polity. With the creation of social cohesion and unity the *sine qua non* for the realisation of its political and socio-economic potential, and hence survival, within an intrinsically competitive international system of such states, the political elites of any emergent participant were bound to be alarmed by perceived centrifugal tendencies associated with communal alterity. Whether or not such tendencies posed a genuinely existential threat, Zygmunt Bauman has proposed that regimes repeatedly sought to resolve the 'problem' by one of two strategies. The first *anthropophagic* route, amounts to forcible assimilation of all distinct elements of the population into clones of the dominant self. The second *anthropoemic* strategy, operating on the assumption that such assimilation is neither achievable nor desirable, seeks to literally vomit out

2. Frank Chalk and Kurt Jonassohn, *The History and Sociology of Genocide: Analyses and Case Studies* (New Haven, CT, and London: Yale University Press, 1990), pp. 44–49, for full text.

the unwanted elements beyond the frontiers of state territory, by expulsion or deportation.<sup>3</sup>

The pertinent question, however, is how far does the Bauman analysis take us towards an explanation for genocide? On one level, it is clear that what he is describing is the underlying structural violence of the modern state leading in turn to the possibility of ethnocide or the potential *preconditions* for genocide. One particularly valuable signpost, for instance, is his reference to targeted groups as the state's 'strangers', even though, as in the case of traditional hunter-gatherers or nomads (albeit often with their habitus extending across transnational boundaries), these are usually a country's *most* indigenous populations. That said, the Bauman argument *of itself* does not provide sufficient signposting as to when, how and why a programme of systematic, sustained, state-organised extermination of a communal group, or groups, is conceived and then enacted. Instead, Bauman's critique is valuable for a different reason. It highlights the fundamental contradiction between a post-1948 universal lip-service to human rights, including a global village identity politics in which we are all supposedly enabled – *as individuals* – to be ourselves, and a *general* statist repudiation of communal entities operating outside, or at variance with the 'normative' developmentalist goals of state. From this perspective, it might suggest that the distance between coercive strategies against recalcitrant or simply anomalous groups as described by Bauman and wholesale annihilation is much narrower than is usually assumed. Our further premise is that far from being an aberrant and thus limited phenomenon, the prevalence and persistence of genocidal violence points to it being a systemic by-product of a modern, world-historical trajectory. The key is trying to understand the particular state crises which have catalysed full-blown genocide. To pursue the argument, we might best begin with the one case universally recognised in the public mind as such.

### The Holocaust and its hinterland

The destruction of close to six million European Jews, or something in the region of 72 per cent in the countries under Nazi hegemony, is remarkable for more than just the numbers involved.<sup>4</sup> It was necessarily transnational, it was sustained across four years of total war, and whether derived from a

<sup>3</sup> Zygmunt Bauman, *Postmodernity and its Discontents* (Cambridge: Polity Press, 1997), p. 18.

<sup>4</sup> Paul R. Mendes-Flohr and Jehuda Reinharz, *The Jew in the Modern World: A Documentary History* (Oxford University Press, 1980), p. 520.

conscious blueprint or not, developed as integral to German domination of the continent. Certainly, it brooked no distinction between men, women and children, or between proportionally very small numbers of Jews, as in Norway, compared with, for instance, Poland where they constituted close to 10 per cent of the country's population. Yet the launching of the 'Final Solution' came out of the Nazis' *failure* to eruct Jews from the Greater German Reich to places beyond Europe, a failure compounded by the stymieing of the 1941 German invasion of the Soviet Union. Jewish mass murder began in the midst of Operation Barbarossa. Some 2.5 million Soviet Jewish inhabitants were subsequently liquidated, largely in mass shootings.<sup>5</sup> The worsening German politico-military crisis in turn precipitated a widening of the mass killing to embrace all of European Jewry under Axis rule. For them, rail trans-shipment in cattle trucks to specially built extermination camps situated in a subjugated Poland was the norm, with the complex at Auschwitz-Birkenau the main continent-wide locus of destruction from spring 1943 through to autumn 1944. Here, as in the other death camps, gas chambers were developed as the preferred technology of annihilation. In practice, a less than refined death machinery combined with the sadistic, irrational and gratuitous violence of the camps are at odds with the 'industrial', scrupulously timetabled and seemingly very modernist aspects of extermination which, over time, have become canonic elements of 'the Holocaust'. Another canonic element is the Nazi insistence that they were acting to protect a superior Aryan race from biological contamination by one hardly deemed human at all. Yet this very obsession with Jewish blood, combined with charges of some 'international Jewish conspiracy' to overthrow Western civilisation, might equally suggest something less modern and more a recrudescence of much older patterns of Christian anti-Semitism in which the Jews were seen as cosmic evil incarnate. Indeed, set against a reality of steady Jewish assimilation and integration into most European countries, with Germany arguably the model *par excellence*, the notion that Nazi genocide against the Jews was enacted on grounds of their irreducible, irremediable, not to say diabolical 'otherness', might point to a phenomenon unhinged from history and outside rational inquiry.

An argument for the singularity of the 'Holocaust', however, would have to be weighed against evidence of synchronous or near-synchronous mass killings by several states either also against Jews, or against other ethnic

5 Yitzhak Arad, *The Holocaust in the Soviet Union* (Lincoln, NE: University of Nebraska Press, and Jerusalem: Yad Vashem, 2009), pp. 521, 524.



groups. From this perspective the Nazi assault might read as one at the very extreme end of a spectrum, but also as part of a geographically, closely interconnected sequence of mid-century genocides. The subjective *perception* of Jews as dangerous and threatening to the social organism was certainly endemic throughout the continent and under conditions of Nazi hegemony provided a pretext for many European state elites, or elements of their wider populations, to abet or directly assist the German destruction of Jews, or, as in the case of Romania, to initiate an autonomous programme of deportation and mass murder. Such pan-European animus, however, also extended to Roma (gypsies), with similarly genocidal consequences. That said, in specific post-imperial regions, the opportunity to 'cleanse' the state or would-be state of other heterogeneous, allegedly 'alien', communities, led under the crisis of wider war to a Ustasha Croat assault on Serbs, a Chetnik Serb one against Muslims, not to say an attempt by the Ukrainian Insurgent Army (UPA) to eliminate all Poles on its own self-liberated Volhynian patch. Seen together these represent aspects of a 1939–1945 pattern in which ultra-nationalist movements in Eastern Europe sought, in conditions of extremis, to complete a full and final surge towards the homogeneous nation state initially begun half a century earlier in the wake of the European continental empires' collapse.

However, to perceive these accelerated developments arising purely as a consequence of Nazi domination, or the mimicking of their racist proclivities by fascist leaning acolytes, may be to miss a more all-embracing tendency at work. Already in the late 1920s the Stalinist drive towards 'Socialism in One Country' via the collectivisation of agriculture had seen an assault on the strongest tier of peasant resistance – the so-called 'kulaks' – go one step further through the conscious effort to cripple those national or regional communities with the greatest potentiality for an independent non-Soviet existence. In a union of republics which was supposedly also a colour-blind family of nations, the state manipulation of scarcity in the wake of collectivisation in order to cause or amplify famine was particularly directed at the Ukraine, North Caucasus, Volga region and Kazakhstan. The best estimate of resulting Soviet deaths during 1932–1933 puts the total figure at some 7.7 million. An estimated 4 million of these were in the Ukraine – the *Holodomor* ('killing through hunger') – with perhaps a million each in the other three main regions.<sup>6</sup> If this marks an early peak in Stalinist domestic mass murder,

6 Pavel Polian, *Against Their Will: The History and Geography of Forced Migrations in the USSR* (Budapest and New York: Central European University Press, 2004), p. 87.

what is equally significant is the manner in which, thereafter, the attack on national, ethnic or religious communities became *more* pronounced. Even before the Ribbentrop–Molotov carve-up of the Eastern European rimlands between Nazi Germany and the USSR in August 1939, Soviet ‘national operations’ emerging out of the ‘Great Terror’ led to the judicial murder of nearly a quarter of a million Soviet citizens, very largely of Polish, Baltic or other rimland nationality.<sup>7</sup> In the two years following the Soviet takeover of eastern Poland, violence against its Polish population in particular may have equalled, if not exceeded, that meted out by the Germans in its western half. To be sure, after their 1941 assault on the USSR, Nazi responsibility for the mass death of millions of Poles, Ukrainians and Belarusians as well as Soviet POWs, vastly exceeded that by Stalin’s NKVD. Nevertheless, the latter’s targeted destruction through deportation of entire if relatively small national groups, such as the Crimean Tatars, Chechens and Meshketians, is indicative of a high phase of war and postwar social engineering geared towards the cleansing of supposedly suspect populations throughout Russia’s western, Black Sea and Caucasian borderlands.

There again, if we were looking for an extension of this pattern across transnational boundaries, we would find it on the southern, formerly Ottoman side of the Caucasian range, though here with the concentration of genocidal mass killing perpetrated a world war earlier. The Committee of Union and Progress (CUP) assault on the Armenian population of Anatolia in 1915–1916 is recognised by most contemporary scholars (if not, for reasons of political self-interest, some governments) as a nearly paradigmatic case of genocide, with half or more of the empire’s estimated 2 million Armenians slaughtered directly, or at the behest of the regime.<sup>8</sup> What is again striking, however, is that this sequence of killing also included other Christian, notably Syriac communities, and also metamorphosed postwar, under the new, overtly Turkish, national regime of Mustafa Kemal (Atatürk), into attempted or actual genocidal cleansings of other Anatolian, non-Turkish peoples, including Greeks and Kurds. Thus, taken as a whole, the sequence of murderous deportations and outright mass killings of ‘minority’ peoples in the western Eurasian rimlands from c. 1912 to 1948, would seem to represent more than the sum of its parts. It cannot be put down entirely to Hitler,

7 Terry Martin, ‘The origins of Soviet ethnic cleansing’, *Journal of Modern History* 70 (December 1998), 856.

8 Hilmar Kaiser, ‘Genocide at the twilight of the Ottoman Empire’, in Donald Bloxham and A. Dirk Moses, eds., *The Oxford Handbook of Genocide Studies* (Oxford University Press, 2010), pp. 382–383, for a careful extrapolation.

Stalin, extremist ideologies, authoritarian regimes, or even war itself, even though these were all major drivers towards genocide. Nor to the role of dedicated, secretly organised killing units – the CUP's *Teskilati Mahsusa*, one early crude prototype – or even party-cum-state security apparatuses such as the Nazi SS or Soviet NKVD, though the latter were clearly the archetypal planners, organisers and resource managers of genocidal *process*. Instead, the scope, scale and intensity of the killing within a relatively telescoped time-scale and demarcated geographic range might suggest a particular phase in historical development.

But this in turn poses a question as to the relationship between the hegemonic core of the emergent international system, their anti-system defiers – most obviously Nazi Germany and Soviet Russia – and genocide itself. The manner in which leading Western powers sought to regularise a genocidal 'unmixing of peoples': Greeks, Turks and others, at the Treaty of Lausanne in 1923 (itself a consequence of the postwar debacle of a British-sponsored Greek invasion of Asia Minor), suggests that while system leaders were wary of condoning people-extermination *per se* they were willing *in extremis* to contemplate hardly less violent anthropoemic solutions to the 'problem' of multi-ethnicity. Lausanne's protocol on compulsory population exchange, or 'transfer', indeed, became the model for various other 'unmixing' projects – including the initial, non-implemented British partition of Arab-Jewish Palestine in 1937, and its actual 1948 enactment by a newly independent state of Israel. By this point, however, the procedure had become normative through the Western Allied end-of-war agreement with Stalin for the eviction of upwards of 12 million 'minority' peoples, the majority ethnic Germans, from the reconstituted, but territorially adjusted states of Eastern Europe. Again, as with the earlier Lausanne sequence, violent eviction spelt death for hundreds of thousands of victims.<sup>9</sup>

One might argue that by dint of the existence of sovereign national polities which at the very least were prepared to absorb their 'expelled' ethnic kin and even treat them as citizens, the margin between what has become known as ethnic cleansing and genocide remains an important one. Certainly, one might imagine that there could have been even more catastrophic death

9 The death toll for the ethnic cleansing of Germans is hotly contested. Recent research by Pertti Aho et al., *People on the Move: Forced Population Movements in Europe in the Second World War and Its Aftermath* (Oxford: Berg, 2008), p. 140, puts the figure at 600,000. For the earlier Greco-Turkish sequence, see Renée Hirschon, ed., *Crossing the Aegean: An Appraisal of the 1923 Compulsory Population Exchange between Greece and Turkey* (New York and Oxford: Berghahn, 2003).

tolls than those that actually transpired had the British not sanctioned partition of imperial India in 1947 into India and Pakistan.<sup>10</sup> But here, as in the later 1993 Owen–Stoltenberg peace plan for the post-Yugoslav ethnic division of a previously communally mixed Bosnia, the emphasis on the creation of viable new, or reformulated nation states as against the protection of politically weak communal groups could also be read as evidence of the West's preparedness to rubber-stamp already implemented genocidal facts on the ground. The postwar burying of the Minorities Treaties and the explicit exclusion of deportation from the terms of the Genocide Convention, were undoubtedly part of the historic international background which enabled Serb or Croat agencies of state or their proxies to do their worst in 1990s Bosnia in what many would regard as a *bona fide* case of genocide. But if all this speaks of ambiguities in Western thinking as to the hinterland of the phenomenon plus of a repeated omission by the system leaders to effectively respond to its actual or potential enactment, might there be something to be said for considering earlier cases where Western *commission* was to the fore?

### Genocides before the Holocaust period

In 1923 the historian of civilisations, Arnold Toynbee, charged the intrusion of what he called the 'Western formula' – the 'political idea of nationality' – into old world empires as the cause of their destabilisation and, more immediately, the spasm of both Greek and Turkish atrocities which he had just witnessed at first hand in Asia Minor.<sup>11</sup> From a somewhat different angle, a generation later, Hannah Arendt argued that the origins of Hitlerite and Stalinist totalitarianism were to be found in the nineteenth-century accelerated momentum of the forerunner European nation states towards colonial imperialism.<sup>12</sup> At *fin de siècle*, the peak of this Western advance was marked by a series of native revolt subjugations which spilled over into outright extermination. Arguably the most concentrated episode (though not in terms of death toll), was that meted out in 1904–1905 to the Herero and Nama peoples in German Southwest Africa. The immediate causes of such genocides would seem to be at variance with the 'nationality' model. The Herero destruction was not triggered by questions of alterity *per se* but rather by their violent

10 Ian Talbot, 'The 1947 Partition of India', in Dan Stone, ed., *The Historiography of Genocide* (Basingstoke: Palgrave, 2008), pp. 420–437.

11 Arnold J. Toynbee, *The Western Question in Greece and Turkey: A Study in the Contact of Civilisations* (London: Constable and Company, 1923), pp. 16–17.

12 Hannah Arendt, *The Origins of Totalitarianism* (New York: Meridian, 1958).

resistance to the subaltern status demanded of them by the colonialists. In which case, one might argue that this was nothing new under the sun but rather the repetition of a narrative which had befallen untold numbers of peoples who had attempted, ultimately unsuccessfully, to defy imperial rule across millennia.

Yet there were important differences between the slaughter of peoples of the modern imperial world as against that of the ancient. For one thing, the Western imperialist takeover of Africa, parts of Asia, the Pacific and the Caribbean was all evidence of the way the globe was becoming interconnected through the West's economic as well as political hegemony. This ascendancy was not predicated on the extermination of peoples *per se*. Relatively weak colonial masters in Africa, for instance, were dependent on local labour supply which usually involved the co-option of local elites or, where that failed, some other strategy including classic divide and rule. Where colonial projects involved sometimes sudden, market-driven grabs for natural resources, however, the pretence of working with indigenous elites could be abandoned altogether in favour of the forcible mobilisation of whole populations for effectively unpaid, hyper-exploitative labour. One irony of this situation is that the most egregious case of violent mass death in *fin-de-siècle* Africa – the drive to extract wild rubber by concession companies in the so-called Congo Free State – was *not* an act of genocide as such but rather of a terror-driven asset-strip. Its knock-on effects in terms of the displacement and consequent massive starvation of an entire tropical region's population led to an estimated 5 million deaths.<sup>13</sup> Of course, in this episode we have insight into how direct exterminatory violence and hyper-exploitation might operate hand in hand. Both Soviet Gulag and Nazi slave camps would test the synergy to its limits.

Nevertheless, the commodification of conquered colonial lands and their natural resources and their opening up to the global market-place through modern forms of production could also *directly* lead to genocide. In tropical Africa, or the Central and Southern Americas, large native populations, even in the latter case after epidemiological collapse, mostly held their demographic own against European settlers. However, elsewhere, in what Alfred Crosby has dubbed the Neo-Europes, smaller groups were vulnerable to direct extirpation, especially where they resisted settler encroachment.<sup>14</sup> The

13 Adam Hochschild, *King Leopold's Ghost: A Story of Greed, Terror and Heroism in Colonial Africa* (London: Macmillan, 1998), pp. 230–233.

14 Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900–1900* (Cambridge University Press, 1986).

alternative was usually flight or forcible removal to some other territory – or ‘reservation’ – where the *indigènes*’ traditional habitus was non-operable, repeatedly leading to psychic as well as physical group collapse. That said, and ever since the initial Eastern seaboard settler wars against the Tsenacommacahs and Pequots in the 1620s and early 1630s, systematic genocidal massacre was a core component of native destruction throughout three centuries of largely ‘Anglo’ expansion across continental North America. The culmination of this process from the mid-1860s to mid-1880s coincided both with the transcontinental spanning by railroad and the final, merciless extirpation of native Araucanian resistance by the Argentinian and Chilean military in the Southern Cone pampas, primarily in the agribusiness interest. In Australia, too, ‘Anglo’ attrition or outright liquidation of Aborigines from the time of ‘first contact’ in 1788 reached its zenith in Queensland in these same decades, as a dedicated Native Mounted Police strove to cleanse the territory of indigenous tribes in favour of further millions of cattle stock. Undoubtedly, in all these instances, Western racism and contempt for natives as ‘savages’ played a critical role in psycho-cultural justifications for genocide.

The lethality of these encounters was amplified by advances in Western military technology, such as breach-loading rifles and machine-guns. Occasional instances where native peoples were able to adapt and sustain modern war-fighting techniques to slow down the Western advance may have deflected some possible genocides into the arena of negotiated settlements. The case of the New Zealand Maori may offer one such instance. However, the more likely destruction of native peoples in the way of Western imperialism was not the only genocidal consequence of this stage of proto-globalisation. Destabilisation of the old world empires also created repeated crises for particularly Russian, Chinese and Ottoman polities as they attempted to consolidate their hold on formerly porous frontier regions in the face of potential foreign penetration. To be sure, arguably the most spectacular mid-eighteenth-century genocide – the destruction of the nomadic Dzungar confederation by the Qing dynasty in the far reaches of Chinese Turkestan – was an indicator of how an empire’s domestic anxieties about a perceived internal threat might have resonance with similar fears expressed by, in this case, an eastwards advancing Russian Empire. However, the 1864 Russian genocidal eruption of the Circassians from the North Caucasus into Ottoman territory followed a more pronounced pattern, with the Circassians in Russian eyes, the supposed post-Crimean War proxies of a British conspiracy. In turn, the resulting destabilisation of Ottoman Anatolia, not least

through the difficulty of resettling masses of traumatised Circassian refugees, contributed to growing intercommunal tensions in the region and, in the mid-1890s, the first bout of major exterminatory blood-letting against the Armenians.

What is striking in all these diverse instances is the degree to which *génocidaire* action was underpinned by fears of being seen as weak or falling behind, in an increasingly Western-dominated world order. Nor were the Western colonisers themselves immune from such neuroses. On the contrary, as racial science, alongside Social Darwinism, intruded into normative elite discourse, statist needs to prove strength were precisely played out in directives such as that of Kaiser Wilhelm II to crush the Herero. No advanced polity could be seen to be stymied, let alone defeated, by 'savages'. To do so was effectively to concede position to one's nearest metropolitan competitors in the race for supremacy. Compensatory narratives of long-standing racial or national superiority over other peoples were only valuable if they could be translated into a genuine *Wille zur Macht*. And if the other peoples were not only close to home but supposedly dangerous to boot, then it became all the more incumbent on state actors to take pre-emptive action against them.

Already as far back as the 1650s, the manner in which a post-Civil War, ideologically driven 'British' nation state launched a retributive war against its Irish periphery suggests how key ingredients for genocide might come together into a lethal matrix. Founded on a long-standing English monarchy yet radically new by dint of its lurch into military republicanism, the threat of sabotage to the untried Cromwellian regime by Irish-Catholic rebels allegedly working in cahoots with the (equally Catholic) French or Spanish was compounded by the charge that the Irish had already stabbed their English overlords in the back a decade earlier when thousands of Protestant settlers had been massacred. The notion that the state at its moment of truth was facing a diabolical enemy which had already attempted to treacherously contaminate, subvert and destroy the commonweal, was one which would be repeatedly regurgitated in later instances of genocide. Not only, moreover, did this justify sequestration of the victims' property and hence redistribution in favour of the state's societal supporters – an economic side to genocide which would reach its apotheosis in the Nazi and more general European fleecing of its Jews – but it also offered to the state the exculpation that it had no choice but to defend itself and *its* people. The fact that in the Irish sequence this amounted to a decision to deport all Catholics into a far-western corner of the island while handing over expropriated lands to a new

wave of English 'plantation' settlers, underscores how an integral element of a population could be literally cast out beyond the pale. But the historic Anglo perception of Ireland as a colony and the Irish as savages presents an ambiguity as to whether this episode really does mark the emergence of the modern, genocidal nation state. 'Resettlement', too, proved beyond the capacity of the Cromwellian polity, perhaps reminding us of the major resource issues involved in systematic programmes of ethnic cleansing. A century and a half on, however, the French Jacobin extirpation of the peasant revolt in the Vendée offers a more sharply defined example on the very cusp of modernity. Here was a state unequivocally committed in principle to the embrace of all its 'citizens' within its universe of obligation and according to the most grandiloquent enunciation of their human rights. Yet no sooner had an undisputed component of that population rejected its totalist agenda in favour of a more traditional self-understanding than it was damned, man, woman and child as a recidivist, subversive fifth-column, ripe for root-and-branch evisceration.

### Genocides after the Holocaust

The destruction of the Vendée returns us to the dichotomy at the heart of the modern nation state and, hence, its proclivities to genocide. To belong, in other words to be accepted by and have conferred on oneself the rights of equal, national membership, has as its corollary the assumption that one will play by the state's rules. The Vendéans not only became the archetypal internal threat by their physical defiance of those rules, but in the process became reified by the state into a powerful enemy with foreign links, thereby confirming its collective separation as well as contumacy. The fear that others might follow suit was certainly part of the historic memory of the Vendée inscribed into Bolshevik, then Stalinist, justifications for their own exterminatory responses to communal insurrections, as it also was in Kemalist obliterations of Kurdish revolts. But then one might argue that it was the primary paradigm for a whole spate of genocidal counter-insurgencies, in all hemispheres, after 1945. The fact that not all of the more than fifty such assaults identified by Barbara Harff and Ted Gurr up to the mid-1990s – thus running at roughly one a year – were against self-professing ethnic or religious groups, led them to propose a further terminology of politicide.<sup>15</sup> In practice, however, as with the original Vendée,

15 Barbara Harff, 'Recognising genocides and politicides', in Helen Fein, ed., *Genocide Watch* (New Haven, CT and London: Yale University Press, 1992), pp. 27–41, and Barbara Harff



most post-1945 politicides were tantamount to genocide for similar reasons; the state having determined – almost always in crisis circumstances – that the only way to deal with the perceived group's irremediable 'otherness' was through physical annihilation.

More pointedly, one can read the worldwide incidence of such sustained, lethal assaults as largely a consequence of newly created elites in post-colonial polities attempting to create a unitary *national* coherence out of ethnographic mosaics of peoples, previously brought into a single embrace usually, though not exclusively, through Western colonialism. Some of the ensuing post-colonial tensions were caused by regimes allocating scarce jobs, land and other resources to the dominant ethnic group at the expense of others, or worse, treating their sometimes remote or distant regions as the basis for an internal colonisation. In extreme instances, the impact of discrimination or repression might lead to demands for outright secession, and, in turn, a crisis of state which the regime attempted to resolve through military mass murder. The case *par excellence* is West Pakistan's spectacularly retributive 1971 assault on the population of its eastern, culturally different Bengali half, in which no fewer than 300,000 and probably vastly more of the latter's population, many of them from the Hindu minority, were slaughtered.<sup>16</sup> Ironically in this instance, it failed to prevent the emergence of an independent Bangladesh. By contrast, twelve years earlier a localised Tibetan resistance to Chinese Maoist collectivisation precipitated if not a bid for independence by the formerly quasi-autonomous, ethnically cum religiously distinct Tibet, then certainly its perception as such by Beijing. With its accusations running thick and fast that the Tibetan religious-cum-political leader, the Dalai Lama, was in league with foreign powers, Tibet's incipient revolt was drowned and defeated in a sea of blood.

Again, the degree to which near-contemporary exterminatory violence visited on ethnic groups attempting to secede from, or resist, the encroachments of a more powerful political centre can be entirely differentiated from pre-modern episodes of this kind, is discussible. On the other hand, the sheer incidence of such events in the early decades of the post-colonial record might suggest the extraordinary pressures new Third World regimes were under to homogenise their societies into a unified whole as a precondition for

and Ted Robert Gurr, 'Toward empirical theory of genocides and politicides: identification and measurement of cases since 1945', *International Studies Quarterly* 32 (1988), 359–371.

<sup>16</sup> See Geoffrey Robinson, 'State-sponsored violence and secessionist rebellions in Asia', in Bloxham and Moses, eds., *Oxford Handbook*, p. 468, for the wide estimates of numbers killed.

rapid integration into – or alternatively competition with – an international political economy. Pressure-cooker style developmental drives founded on notions of a ‘survival of the *fastest*’ might lead, as in the case of China’s Great Leap Forward, to self-inflicted mass famine. In other instances, however, it could lead to the exacerbation of socio-economic and political inequalities between dominant and subaltern groups. Paradoxically, modernist state commitments to educational provision across society might also have amplified subaltern awareness of state discrimination against themselves, leading to an increasingly ethnicised mobilisation of political opposition. And so, too, to a wider recognition of a politics beyond immediate state boundaries from which opposition movements might draw inspiration, or even direct support.

In the overwrought psychological as well as geopolitical conditions of the Cold War the results could be fatal. The Guatemalan state attack on its Mayan highland communities, with its genocidal apotheosis in 1983, for instance, was in part about extirpating an alternative, grass-roots social system at variance with actually minority ‘Ladino’ hegemony. Yet equally it entailed fears of a Soviet or Cuban-backed communist intrusion spreading further into the western hemisphere. As a consequence, covert US backing for Central or South American junta proxies such as that of Guatemala’s Ríos Montt also entailed a readiness to condone the military extirpation of often indigenous populations supporting or allegedly succouring communist insurgents. Given the global range of the bipolar struggle, US support for the Indonesian massacres in 1965 as perpetrated by Jakarta’s military against anybody tainted with alleged communist (or indeed any form of) subversion, or again, in 1975, in support of the same Suharto regime in its sustained genocidal extrusion into a recently independent East Timor, followed a similar logic. But so too did Soviet behaviour in regions of the world where through the backing of newly installed ‘revolutionary’ regimes such as the Ethiopian Dergue from the mid-1970s or, closer to home, a communist-orientated Afghanistan, it was able to extend its influence. The consequent US versus Soviet struggles for position, albeit at first or second hand, in the Horn of Africa, or Central Asia, resulted in vast regional destabilisations. Whether ensuing death tolls were genocide, or tantamount to genocide coming out of targeted deportations or famine, or, there again, of populations being caught between insurgents and counter-insurgents in what amounted to free-fire zones, is not always easy to disentangle.

In 1974, a non-governmental war crimes tribunal argued that the nature of US warfare in Vietnam – the bipolar cockpit *par excellence* of the period – amounted to genocide. Whether this is correct or not, what can be said with

more certainty is that the US programme of covert mass bombing of formerly neutral Cambodia – as the Nixon regime attempted to stymie the flow of communist north Vietnamese troops and *matériel* by that route into US-backed south Vietnam – through the destruction it wrought, helped precipitate the victory of the Khmer Rouge, one of the late twentieth-century's indubitably genocidal regimes. Under the leadership of Pol Pot, the Khmer Rouge sought to transform Cambodia by returning the country to an agriculturally based 'year zero', in order to galvanise an entirely state-directed 'Super-Great Leap Forward', thereby not simply emulating but surpassing the goals of its Chinese, Maoist patrons. Again, much of the mass death – an estimated 1.6 million out of possibly 8 million Khmer perished in the succeeding three and a half years of Pol Pot rule – was a consequence of the general terror and hardship enacted by a genuinely totalitarian regime against its whole population. But within Cambodia's killing fields a special place was reserved for specific ethnic or religious groups; Vietnamese, Muslim Chams, the entire cohort of Buddhist priests and nuns, not to say, in perhaps the most bizarre of all episodes, the population of the entire eastern region, who – though clearly ethnically Khmer – were fatally declared to be 'Khmer bodies with Vietnamese minds'.<sup>17</sup>

The relentless, often lurid, certainly racialised violence of the Khmer Rouge, its attempt to isolate itself from the international political economy, while seeing anybody with outside connections or education as a tool of exactly that, has ensured an ongoing fascination with its brief, utterly paranoid, reign of terror. However, it should not close off awareness of the United State's equivocal relationship to it, given Khmer Rouge opposition to Soviet-backed Vietnam, or of wider Cold War calculations which ensured that other notably egregious regimes, Saddam Hussein's Iraq included, had something more than tacit Western support. As one consequence, Saddam's equally politicidal *and* genocidal 1987–1988 'Anfal' campaign against Iraqi Kurds, during his prolonged war with Iran, reminds us not only of the ongoing vulnerability of stateless transnational peoples, but also of the willingness of key signatories to the Genocide Convention to turn a blind eye to mass atrocities, including the March 1988 gas attack on the Kurdish town of Halabja.

17 Ben Kiernan, *The Pol Pot Regime: Race, Power, and Genocide in Cambodia under the Khmer Rouge, 1975–79* (New Haven, CT and London: Yale University Press, 1996), pp. 458, 3–4.

## From the Cold War to the present and beyond

The collapse of the Soviet system in 1989–1990 and with it the emergence of a ‘one-world’ economy led by its neo-liberal, free-trading, metropolitan core, suggested not only the possibilities for more peaceful relationships between states but also notions that a truly international community would now use its power to liberate humanity from the ‘odious scourge’ of genocide.<sup>18</sup> The jury, however, must remain out on any such verdict. A spate of genocidal wars on the western and southern edges of the collapsed communist system suggested a recrudescence of the xenophobic agendas which had marred these same regions in the post-imperial struggles of the first half of the twentieth century. In particular, the part-Serb, part-Croat drive to dismember post-Yugoslav Bosnia and ethnically cleanse it of its major third Muslim component, focused international attention on just how quickly elements of populations could be mobilised against long-standing neighbours.

Even more was this demotic element evident in Rwanda, the late twentieth-century example of genocide *par excellence*. Television footage of Interahamwe militias butchering Tutsi men, women and children with machetes became the prevailing Western image of the 1994 killings. However, the degree to which outside forces pushed Rwanda to the brink were much less broadcast or, hence, understood. The build-up to genocide was in part precipitated by the military invasion of Rwanda from neighbouring Uganda by mostly second generation Tutsi refugees (the Rwandan Patriotic Front) whose parents were themselves survivors of an earlier spate of anti-Tutsi genocidal violence. More paradoxically, the way this invasion coincided with rather sudden post-Cold War pressures from the West on the one-party, but otherwise relatively stable (Hutu) regime to democratise, fuelled both elite and more grass-roots fears that foreign powers were conniving to tear up the post-colonial status quo in favour of a renewed – minority – Tutsi hegemony. Such fears were further fuelled by the massacres of mostly majority Hutus in an ethnically similar neighbour, Burundi, in the wake of its democratisation. In the event, British and US insistence on Rwandan power-sharing – the Arusha Accords – between the incumbent regime and the RPF pending national elections, arguably provided the final stimulus, pushing regime ultras, the so-called Hutu Power, towards unilateral action. What followed in the hundred days from their 6 April coup before the RPF militarily defeated them, was a wholesale attempt

<sup>18</sup> From the Preamble to the UN Genocide Convention.

by Hutu Power to exterminate all Tutsi within their territorial reach, plus anybody else seeking to protect them, or defy the regime's writ. Out of a total Rwandan population of some 8 million, the death toll greatly exceeded 500,000.<sup>19</sup> If the speed and scale of this killing was remarkable, accomplished as it was in large part with the crudest of weaponry, what is also most remembered in the West is the glaring discrepancy between the internationally media-broadcast knowledge that a far-reaching genocide was taking place and the inability or unwillingness of the international community – repeated, ineffectual meetings of the UN Security Council notwithstanding – to stop it.

In the wake of Rwanda there were some concerted efforts towards a more proactive international *juridical* response to genocide. Under the sponsorship of the UN, ad hoc tribunals were set up to try crimes under international law, including genocide, committed in both former Yugoslavia and Rwanda. In 1998 the Rome Statute paved the way for an independent International Criminal Court founded four years later at the Hague to put such efforts on a more permanent footing. At UN behest, the ICC began investigations in 2005 into charges of genocide allegedly committed by the Sudanese state in its Darfur province, proceeding thereafter to uniquely indict head of state, Omar al-Bashir, for such crimes. At the present time, however, no further action has been taken against him or his regime. In practice, the ICC writ is limited by its dependence on the political power of the hegemonic metropolitan states, and their determination to punish, let alone prevent, potential genocide is, and is likely to remain, secondary to other geopolitical considerations. In 1999, the NATO aerial assault on Serb forces in Kosovo, in response to the latter's mass ethnic cleansing of the region's Albanians, briefly suggested otherwise. But the NATO action was also consciously geared towards changing the balance of power in the region against Belgrade. By the same token, the 2003 US-led invasion of Iraq had little or nothing to do with Saddam's history of human rights violations. Even then, it could not have been undertaken without a certainty of something near to impunity, including non-interference in US military action from other powerful international players, notably Russia and China. In short, the assumption that the United States (or West) will act as if it is the international community in cases of genocide is limited to violations of the Convention in either relatively weak states and/or where intervention could also be made to serve other Western interests.

19 Scott Straus, *The Order of Genocide: Race, Power, and War in Rwanda* (Ithaca, NY and London: Cornell University Press, 2006), pp. 51–52, queries the standard 800,000 figure.

The likelihood of such intervention in instances where there have been knock-on consequences from genocide is even more remote. The massive destabilisation of the Democratic Republic of Congo to the present time began in significant part when the victorious RPF in Rwanda began pursuing the *génocidaires* who were among the mass of Hutu refugees who had fled across the Congolese border in 1994. The ensuing conflict became a pretext for a much wider set of interventions by other African states, the ulterior aim of which was to lay their hands on Congo's vast mineral and timber assets. The ensuing death toll for the decade from 1998, according to one authoritative report, from either direct violence or related societal breakdown, has been put at 5.4 million.<sup>20</sup> Yet despite this being the most severe and sustained zone of violence in the contemporary world, UN peace-keeping has been paltry in the extreme. As for Western concern as to the armed militias and armies controlling and terrorising Congo's resource-rich eastern provinces, this has been overwhelmingly subordinated to ensuring the uninterrupted supply of precious metals such as tantalum (coltan), essential to both civilian and military electronic communications, Everyman's mobile phone included.

The Congo tragedy may suggest the fragility of Lemkin's vision for combating and defeating genocide through international law when set against an increasingly complex range of underlying, structural stress factors. One aspect of the Rwanda genocide, for instance, which requires further exploration, is the degree to which rural population pressures combined with land scarcity and environmental degradation to produce a neo-Malthusian-style crisis.<sup>21</sup> Today's global human population of over 7 billion and rising poses the certainty of increased competition for diminishing land and water resources, especially between subsistence communities, making the world Rwanda writ large. What we have sought to stress about the modern historical causation of genocide has rather tended against seeing it as a product of local or traditional group conflict. On the contrary, we have posited that the primary, underlying driver is the 'developmentalism' of state elites as geared towards their state-society's 'catch up' with the hegemonic system leaders, thereby enabling them to stay afloat in a seemingly 'normative' but actually merciless globalised system. More than any other factor it has been such elite fears of

20 International Rescue Committee, *Mortality in the Democratic Republic of Congo: An Ongoing Crisis* (New York: IRC, 2007).

21 See Jared Diamond, *Collapse: How Societies Choose to Fail or Survive* (London: Penguin, 2005), chapter 10, 'Malthus in Africa: Rwanda's genocide', for extrapolation of a wide range of research findings.

mostly domestic, communal entities – real or imagined – sabotaging that state-organising and determined trajectory which has been the *cantus firmus* of genocide. But as the exponential, developmentalist drives for economic growth have hit their environmental buffers, most obviously now evident through dangerous and accelerating climate change, a wider set of variables changing the contours of genocide are also that much greater.

An early indicator of this reconfiguration may be on offer by way of the experience of the Chittagong Hill Tracts (CHT) in Bangladesh. Superficially, in the early 1980s, the Dhaka military regime's assault on CHT's indigenous hill tribes could be taken as a classic case of a culturally dominant (in this case Muslim) majority seeking to suffocate some very different ethnic minorities in their struggle for autonomy. The fact that behind the regime's determination to wipe out resistance were state imperatives to secure and then fully exploit CHT water, oil, gas, timber and other resources for rapid industrial development, could also be taken as par for an extremely violent course. However, the shift into genocidal mode had another ingredient, the – albeit inadvertent – massively Western aid agencies-supported project to shift millions of people from the environmentally degraded and increasingly flood-prone delta region into the sparsely populated hill country. Much of the subsequent violence involved not only military massacre but that committed by state-armed settlers too. That was then: a complete genocide of the hill tribes was only prevented by Bangladesh's shift from military to civilian democratic rule. Yet in the early decades of the twenty-first century the underlying and fundamental 'environmental overshoot' factors have not gone away but actually become much worse. For all its industrial, Dhaka-centred growth, the great majority of Bangladesh's vastly overpopulated polity remain very poor peasants in a delta region – much of which will be submerged as the effects of climate change take hold. It is accordingly not so difficult to imagine, sometime in the not so distant future, a 'last resort', but much more determined, state-led repeat of the 1980s scenario to 'secure' the CHT and whatever residual land and resources remain, not least when set against the certain knowledge that neighbouring countries, exemplified by India's construction of a 4,000 kilometre steel and concrete fence around Bangladesh, will deny mass refugee flows across their borders.

This South Asian example may offer in microcosm an insight into how nation states may respond as competition for already scarce resources is threatened and potentially overwhelmed by tens, if not hundreds of millions of environmentally displaced peoples on the move from flood and drought. Twentieth-century genocide was often too easily read as a consequence of

totalitarian or racist regimes acting in defiance of a liberal, implicitly pacific world order. Yet this is to ignore or side-step the violent, repeatedly genocidal origins of that order, as it is to forget that in-built into it have been drives to attain the unattainable on the one political hand, geared towards social and cultural conformity – the most common route to which has been ethnic homogeneity – and its necessary corollary, a vision of unlimited economic growth itself predicated on the need to survive and ‘catch up’ within a very unequal, hegemonic-determined system. The consequences of that unattainability are now presenting through the biospheric blow-back attendant on anthropogenic climate change. As the biospheric crisis intensifies, we may expect nation states to embark on increasingly dystopian paths to buttress their own self-preservation. In addition to indigenous peoples, always the most vulnerable to attrition or annihilation in the face of normative development, we might anticipate that refugees and minorities will be the groups most in danger either from a societal backlash or from increasingly coercive, authoritarian states keen to displace the blame for their own failings onto the already marginalised. In conditions of general, sustained environmental emergency, we may particularly anticipate that *advanced* nation states will fight tooth and nail to ensure the inviolability of their borders, thus repudiating the chances of survival for those in a traditional world who would have sought flight across more porous political frontiers. Genocide was and remains a by-product of a wider systemic dysfunction. It may, in the upshot, also provide a window into our ability and willingness to change course towards paths of reconciliation between ourselves and nature, or to make one final leap over the precipice.

### Further reading

- Ahonen, Pertti, et al. *People on the Move: Forced Population Movements in Europe in the Second World War and Its Aftermath*. Oxford: Berg, 2008.
- Aly, Götz. ‘Final Solution’: *Nazi Population Policy and the Murder of the European Jews*. London: Arnold, 1999.
- Andreopoulos, George D., ed. *Genocide: Conceptual and Historical Dimensions*. Philadelphia, PA: University of Pennsylvania Press, 1994.
- Bauman, Zygmunt. *Modernity and the Holocaust*. Oxford: Blackwell, 1989.
- Bloxham, Donald. *The Final Solution: A Genocide*. Oxford University Press, 2009.
- The Great Game of Genocide: Imperialism, Nationalism, and the Destruction of the Ottoman Armenians*. Oxford University Press, 2005.
- Bloxham, Donald, and A. Dirk Moses, eds. *The Oxford Handbook of Genocide Studies*. Oxford University Press, 2010.



- Carmichael, Cathie. *Genocide before the Holocaust*. New Haven, CT, and London: Yale University Press, 2009.
- Chalk, Frank, and Kurt Jonassohn. *The History and Sociology of Genocide: Analyses and Case Studies*. New Haven, CT, and London: Yale University Press, 1990.
- Elliot, Gil. *Twentieth Century Book of the Dead*. London: Penguin, 1972.
- Fein, Helen. 'Genocide: a sociological perspective'. *Current Sociology* 38:1 (1990), 1–126.
- Freeman, Michael. 'Genocide, civilization, and modernity'. *British Journal of Sociology* 46 (1995), 207–223.
- Gellately, Robert, and Ben Kiernan, eds. *The Specter of Genocide: Mass Murder in Historical Perspective*. Cambridge University Press, 2003.
- Gerlach, Christian. *Extremely Violent Societies: Mass Violence in the Twentieth-century World*. Cambridge University Press, 2010.
- Harff, Barbara, and Ted Robert Gurr. 'Toward empirical theory of genocides and politicides: identification and measurement of cases since 1945'. *International Studies Quarterly* 32 (1988), 359–371.
- Jones, Adam. *Genocide: A Comprehensive Introduction*, 2nd edn. London and New York: Routledge, 2011.
- Kiernan, Ben. *Blood and Soil: A World History of Genocide and Extermination from Sparta to Darfur*. New Haven, CT and London: Yale University Press, 2007.
- Kieser, Hans-Lukas, and Dominik J. Schaller, eds. *Der Völkermord an den Armeniern und die Shoah*. Zurich: Chronos, 2002.
- Kuper, Leo. *Genocide: Its Political Use in the Twentieth Century*. New Haven, CT, and London: Yale University Press, 1981.
- Lemkin, Raphael. *Axis Rule in Occupied Europe*. Washington, DC: Carnegie Endowment for International Peace, 1944.
- Levene, Mark. *The Crisis of Genocide: The European Rimlands, 1912–1953*, 2 vols. Oxford University Press, 2013.
- Levene, Mark. *Genocide in the Age of the Nation State*, 2 vols. London and New York: I. B. Tauris, 2005.
- Mann, Michael. *The Dark Side of Democracy: Explaining Ethnic Cleansing*. Cambridge University Press, 2005.
- Moses, A. Dirk, ed. *Empire, Colony, Genocide: Conquest, Occupation, and Subaltern Resistance in World History*. Oxford and New York: Berghahn Books, 2008.
- Polian, Pavel. *Against Their Will: The History and Geography of Forced Migrations in the USSR*. Budapest and New York: Central European University Press, 2004.
- Straus, Scott. 'Contested meanings and conflicting imperatives: a conceptual analysis of genocide'. *Journal of Genocide Research* 3:3 (2001), 349–366.
- Shaw, Martin. *What is Genocide?* Cambridge: Polity, 2007.
- Snyder, Timothy. *Bloodlands: Europe between Hitler and Stalin*. London: Bodley Head, 2010.
- Stone, Dan, ed. *The Historiography of Genocide*. Basingstoke: Palgrave, 2008.
- Weitz, Eric D. *A Century of Genocide: Utopias of Race and Nation*. Princeton University Press, 2003.
- Zimmerer, Jürgen, ed. Special Issue: 'Climate change, environmental violence and genocide'. *International Journal of Human Rights* 18:3 (2014), 263–390.

## Communism and fascism

ROBERT STRAYER

Among the defining phenomena of the twentieth century, none had a greater world historical significance than communism and fascism. To varying degrees, both operated on a global scale. While fascism found expression most thoroughly in Italy and Germany, it had supporters, imitators, and influence in Europe, the Americas, and Japan. Communism, born of the Russian Revolution of 1917, subsequently took root in Eastern Europe, China, Southeast Asia, and Cuba, providing the governing ideology for roughly one-third of the world's population by the 1970s. And non-governing communist parties and movements appeared prominently in many other places. Challenging Western notions of liberal democracy, individual freedom, and social tolerance, fascist and communist regimes alike sought an unprecedented degree of state control over individuals and society, giving rise to a new category of political system called "totalitarianism." In the Holocaust, the Soviet terror of the 1930s, the Chinese Great Leap Forward and Cultural Revolution, and Cambodia's "killing fields," both communism and fascism generated human tragedies on an immense scale. And in their arrival on the world stage, they generated two of the enormous global conflicts of the twentieth century – the Second World War in the case of fascism and the Cold War in the case of communism.

Beyond their vast global significance, fascism and communism have intrigued world historians because of their almost simultaneous emergence and their connections to one another. Their common origins in Europe, the earliest location of the modern transformation, reflected the distinctive discontents of modernity – new forms of class conflict, the instability of capitalist economies, the popularization of nationalist, socialist, and racist ideologies, for example. While each derived from very distinct intellectual and cultural genealogies, communism and fascism both arose as viable political projects from a fragmented and bitterly divided European civilization during the First World War. That huge cauldron of conflict provided the

immediate context for the Russian Revolution from which world communism emerged. And it likewise generated the political grievances, social conflicts, and dissatisfied veterans that fed fascist movements in both Italy and Germany. Fear and hatred of Bolshevism was an important element in both Italian and German fascism, while anti-fascism became a central feature in Soviet and East European communism. But not all was hostility and conflict between them. Hitler's Germany and Stalin's Soviet Union famously signed a "Non-Aggression Pact" in 1939, which delayed war between them for two years. And each recognized, reluctantly admired, and perhaps borrowed elements of the other.

The comparative impulse of world historians is yet another reason why they find communism and fascism fascinating, although the comparisons between them have long been highly controversial. Soviet communists and their sympathizers, victorious in a bitter and bloody war with fascists, strenuously resisted any efforts to find similarities between their own regimes and those of their hated enemies. Thus they deeply resented Western analyses during the Cold War that defined both as "totalitarian" and even "criminal," with some arguing that communism was even "worse" than fascism.<sup>1</sup> The fading of communism as the twentieth century ended opened up some space in which more dispassionate comparisons of communism and fascism could take place. A growing recognition of considerable variation within both the communist and fascist worlds likewise offered grist for the comparative mill of world history. Considering communism and fascism as ideologies, as political and social movements, and as regimes exercising state power provides three categories of analysis for examining these tremendously important features of twentieth-century world history.

### Communism and fascism as ideologies

Ideologies consist of ideas and values about public life, understandings as to how society works or ought to work, and contain both views of history and visions of the future. More explicitly in the case of communism and more amorphously for fascism, those ideologies defined the outlook of their respective movements, shaped and legitimated the actions of movement and regime leaders, and changed over time as they emerged within particular cultures and circumstances.

<sup>1</sup> See Stéphane Courtois et al., *The Black Book of Communism: Crimes, Terror, Repression* (Cambridge, MA: Harvard University Press, 1999).

The ideologies of twentieth-century communists were rooted firmly in the nineteenth-century thought of Karl Marx. Understanding history as class conflict, Marx had celebrated the age of industrial capitalism as a time of enormous material progress, virtually eliminating the necessity of poverty and human misery. But that novel possibility was blocked by the fatal flaws of capitalism – private property, mounting inequalities, worsening cycles of economic expansion and contraction, intensifying class struggles, competitive and individualistic values. No wonder then that capitalism was doomed to collapse in a revolutionary upheaval ignited by an exploited working class. What followed, Marx argued, would eventually be an international socialist federation, without poverty, classes, war, or coercive political authority; a rationally planned and egalitarian community in which genuinely human possibilities might be fully realized.

Born in the most economically advanced parts of Western Europe, that rich fund of ideas underwent significant transformation as it took root, first in Russia and later in China and elsewhere. Here “communism” was born, distinct from the “social democratic” and “socialist” traditions and movements that characterized Western Europe in the late nineteenth and early twentieth centuries.

It was Lenin who adapted Marxism to the conditions of Russia, where capitalist industrialization had only just begun and where a still autocratic state denied the openings to democracy and trade unionism that were becoming more available in Western Europe. One of Lenin’s ideological innovations involved the classic Marxist notion of revolution. By the end of the nineteenth century, many European socialists had largely abandoned the need for revolution, believing that socialism could be gradually and peacefully realized via incremental reforms and democratic processes. Not so Lenin. Well before the Russian Revolution occurred, he had upheld the continuing need for such an upheaval, particularly in Russia’s uniquely despotic circumstances.

Furthermore, he argued that such a revolution could be genuinely socialist. In this respect he was going against the grain of conventional Marxist thinking, which held that a socialist revolution was most likely in those economically advanced countries where capitalism and democracy had already laid the foundation of abundance and freedom, essential for a socialist transformation. To Lenin, however, a relatively backward Russia was the weak link in the capitalist world. A socialist upheaval there, he argued, would trigger revolutions in the more advanced countries, thus giving rise to a world communist movement. Here was an understanding of revolution that

depended more on human will and determination than on a particular stage of economic development.

That conception required a second ideological innovation – about the nature of the Party. Socialist parties in Western Europe were large and inclusive, seeking to enroll as many members as possible in order to enhance their influence in the democratic politics of their countries. Lenin, however, argued for a party that was small, tightly organized, highly disciplined, and led by professional revolutionaries who would be able to seize the revolutionary moment when it arrived. That conception of the party derived both from Russian autocracy, which made open political activity impossible, and from Lenin's distrust of the workers, who, he feared, could be easily seduced by merely reformist measures that would leave a hated capitalism intact.

Further ideological innovations followed with Stalin in the late 1920s and 1930s. It had become clear that no European revolutionary upheaval would come to the rescue of the backward Soviet Union. Furthermore, the threat of fascism became increasingly apparent. The result was the notion of "socialism in one country," a "go-it-alone" strategy that implied a central role for the state in mobilizing resources for rapid industrialization and the "building of socialism."

Although much of the Marxist–Leninist–Stalinist version of communist ideology carried over into Chinese communism, Mao Zedong argued for several additional variations. In an overwhelmingly rural setting, with even less of an industrial base than Tsarist Russia, Mao promoted the peasantry as the major revolutionary class. This was a sharp and highly controversial departure from classic Marxism, which had always viewed the industrial proletariat as the agent of revolutionary transformation. Furthermore, Mao elaborated on the notion of "permanent revolution," earlier associated with Marx himself and with Trotsky. To Mao, it meant that history did not stop with a communist victory and that social contradictions and struggles persisted, requiring continuous revolutionary action. This philosophical idea was reinforced by Mao's disappointment with the outcomes of Chinese imitation of Soviet practice. He feared that urban industrial development under centralized state control was creating new elites and moving China away from genuine socialism. By the 1960s, he felt that China was in fact "taking the capitalist road." Such ideas lay behind the massive upheavals of the Great Leap Forward (1958–1961) and the Cultural Revolution (1966–1976).

Beyond the variations and innovations in communist ideology lay certain bedrock commonalities. Communism everywhere was a thoroughly modernist ideology, its eye firmly on the future of an industrial and abundant

society with little idealization or romanticism about the past. There was in fact a utopian element in that ideology, despite Marx's adamant rejection of "utopian socialism." "We will remake life anew – right down to the last buttons of your vest," wrote the Soviet poet Vladimir Mayakovsky.<sup>2</sup> Beyond changing society, communist ideology affirmed the possibility of transforming human consciousness in the direction of selflessness and service to the collective. Stalin and many Chinese leaders often referred to teachers and writers as "engineers of the human soul." This rather non-Marxist voluntarist faith in the power of human action to transform both society and the self was accompanied by a certainty about a successful outcome, born of the belief that Marxism represented scientifically derived truths about the laws of history. Communism would triumph because it was carried on the tides of inevitable historical change.

Fascist ideology has been far more amorphous than its communist counterpart, even inchoate, and difficult to define with any precision. The term *fascism* derives from Mussolini's Italy, though scholars have used it to characterize a more widespread phenomenon, of which Nazi Germany was the prime exemplar, even though Hitler himself seldom used the term. Unlike communism, anchored as it was in the single source of Karl Marx's writings, fascism had many parents. It drew on a melange of ideas current around the end of the nineteenth-century: radical nationalism, racial theories, anti-Semitic thought, a philosophical "revolt against positivism," Social Darwinism, artistic "futurism," and more. But no core text served as a point of common reference for advocates of fascism.

Both fascist and communist ideology represented revolutionary responses to the multiple discontents of industrial modernity and to political liberalism – its many conflicts of class, gender, party, and nation, its erosion of traditional communities in the name of individualism, its pervasive materialism. "There is more that binds us to Bolshevism than separates us from it," declared Hitler in 1934. "There is, above all, genuine revolutionary feeling."<sup>3</sup> And Mussolini was a socialist before he was a fascist. Both communists and fascists looked forward to overthrowing existing governments, creating societies with new values, and generating a new kind of human consciousness. In both, there was a sense of entering a new and fresh age of utopian possibilities – for the Nazis, a purified Aryan people constructing a new racial order in Europe, and

2 Quoted in Richard Stites, *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (Oxford University Press, 1989), p. 38.

3 Quoted in François Furet, *The Passing of an Illusion: The Idea of Communism in the Twentieth Century* (University of Chicago Press, 1999), pp. 191–192.

for the communists, the universal liberation of humankind from the scourge of capitalism.

Confronting the social atomization of bourgeois society, both ideologies emphasized the primacy of the collective or the group – for the communists, an international body of workers, and for fascists, the collectivity of the nation. Fascist thought viewed the nation as a natural and organic unit, which had, however, become corrupt, decadent, and divided as unrestricted capitalism, party politics, feminism, socialism, and the smug complacency of bourgeois society took hold. The great revolutionary task of fascism was to purify and renew the nation while giving it a grand mission on the world stage. It was less a social upheaval such as communists imagined and more of a cultural or moral transformation that would result in the rebirth of the nation and the creation of a “New Man,” described by Hitler as “slim and slender, quick like a greyhound, tough like leather, and hard like Krupp steel.” The novelty and the mass appeal of fascism, as compared to other right-wing ideologies, lay in this revolutionary and future-oriented posture, in its ability to capture the mystique of revolution on behalf of anti-democratic and anti-communist ideals, and in its embrace of modern technologies of communication such as radio and film.<sup>4</sup>

The extreme nationalism of fascist ideology accounts for its “negations,” its vitriolic rejection of much that was a part of modern European thinking by the beginning of the twentieth century. Like the communists, fascists despised liberal political theory, rooted as it was in the idea that individuals had an existence independent of class, state, or nation. Democracy divided the nation into bickering political parties, enabling mediocrity and compromise rather than excellence and decisive action. Socialism pitted class against class, while feminism put men and women at odds. And classic conservatism feared revolution and looked to the past rather than the future. All of these fascism rejected.

But this fascist rejection of modern life was selective rather than wholesale. While they may have spoken romantically about the Roman Empire or medieval German peasant communities, fascists embraced science, technology, industry, mass politics, and all the military power that modernity could generate. What they sought was an alternative and disciplined modernity in service to the nation, shorn of the disrupting and corrosive features that it had assumed in liberal democratic societies.

4 François Furet and Ernst Nolte, *Fascism and Communism* (Lincoln, NE: University of Nebraska Press, 2001), pp. 32–33, 89.

Fascist ideology spoke the language of emotion, myth, will, and action rather than thought, rationality, and reflection. It emphasized “mobilizing passions” – resentments, prejudices, a sense of victimization – as a means of binding a national community together.<sup>5</sup> A leader, emerging from the people and mystically bound to them, embodied the will of the nation and enabled its mission in the world. Struggle, violence, and war were positive virtues in fascist thought, as they ennobled humanity and allowed the stronger and the superior to prevail over the weak and inferior. “Those who want to live, let them fight,” declared Hitler in *Mein Kampf*. This valorization of all things military was associated with an extreme emphasis on the masculine principle, a corresponding “flight from the feminine,” and a “pathological fear of . . . softness.”<sup>6</sup>

Much of this was common to fascist thought wherever it was found. But the German or Nazi version of fascist ideology was clearly distinctive, particularly in its understanding of the nation and its enemies. Hitler and the Nazis drew on a heavily romantic strain of German nationalism known as *volkisch* or people’s thought. It depicted an idealized German people, mystically related to a sacred landscape and expressing a unique German soul – more natural, spiritual, intuitive, and idealistic than the rationalist humanism of Britain and France (Fig. 17.1). Such thinking was particularly compatible with the pseudo-scientific racist ideas that were percolating in Europe during the second half of the nineteenth century, and in Hitler and the Nazis those ideas became central to German fascism, far more so than in Italy or elsewhere.

To the Nazis, German nationality was defined, not just in terms of culture, language, or law, which might be acquired or accepted by anyone, but by blood or race, which was permanent, indelible, and inheritable only by birth. Purity of race was, therefore, critical, lest the nation suffer the pollution born of mixing with inferiors, thus corrupting its very soul. “The stronger must dominate,” Hitler wrote, “and not blend with the weaker, thus sacrificing his own greatness.” Drawing on a long and varied tradition of European anti-Semitism, Hitler presented the Jews as the chief source of that pollution, associated alike with liberalism and the “egoism of the individual,” with the greedy money-lending features of capitalism, and with a despised Soviet communism. Thus, Jews came to embody all that was negated in fascist

5 Robert Paxton, “The five stages of fascism,” in Michael S. Nieberg, ed., *Fascism* (Aldershot: Ashgate, 2006), p. 86.

6 Roger Griffin, *The Nature of Fascism* (New York: St. Martin’s Press, 1991), p. 198.



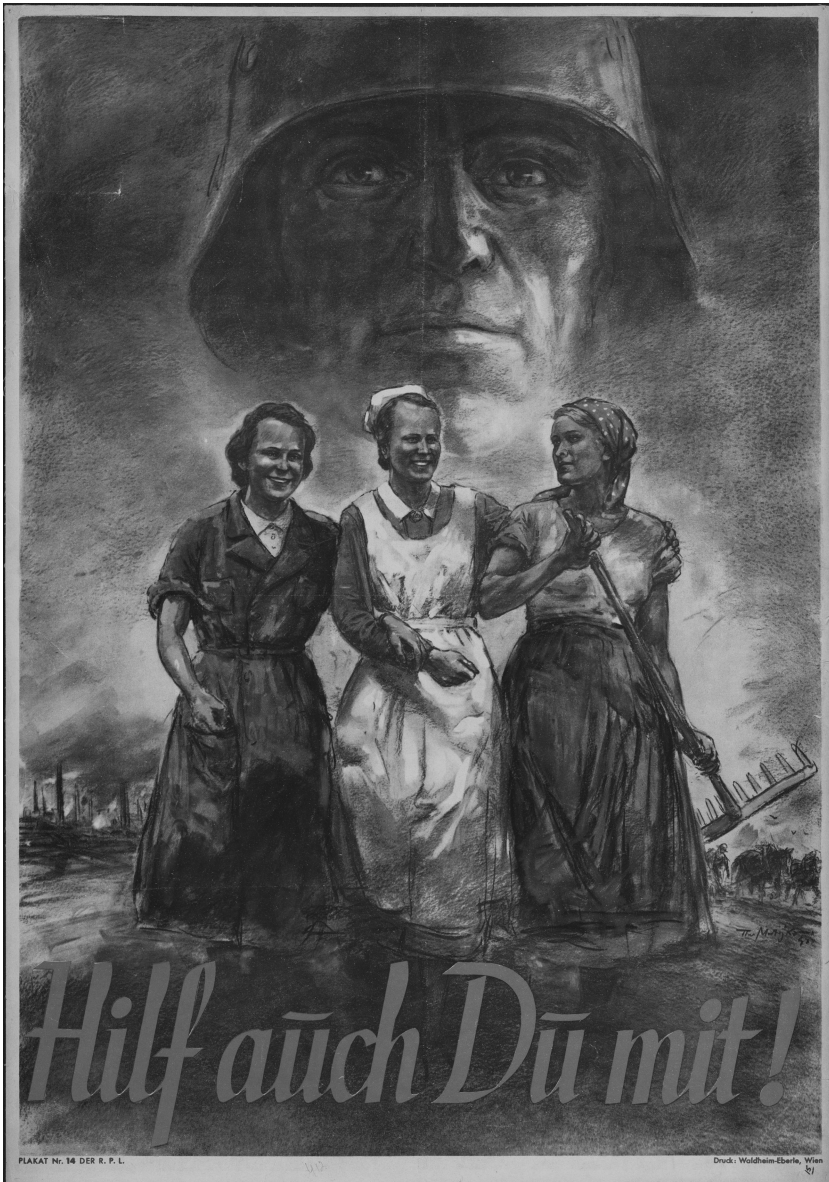


Figure 17.1 “Hilf auch Du mit!” German Nazi propaganda poster showing women helping in the war effort, 1941  
(Masterprints/Alamy)

ideology. The great task of the Nazis was to carry out a racial revolution, to eliminate this dire threat to German national greatness. This radical and violent obsession with race and the “Jewish threat” marks Nazi thinking as a unique form of fascist ideology, in degree if not in kind.

### Communism and fascism as social movements

Such ideologies provided the foundation for social movements, usually embodied in a political organization or a party. Those parties, communist and fascist alike, propagated their ideas, recruited members, struggled with their opponents, sometimes contested elections, and strategized about seizing the power of the state. The great divide among these movements lies between those that did achieve state power, thus becoming regimes, and those that remained in opposition to the established order.

Among communist movements, pride of place clearly belongs to that of Russia, for that movement initiated world communism when the Bolshevik party seized power during the Russian Revolution of 1917. Later renamed the Communist Party of the Soviet Union, the Bolsheviks, under the leadership of Lenin, began in 1903 as a small break-away faction of the larger Marxist organization, the Russian Social Democratic Labor Party. Bolsheviks spent much of the next decade in fierce controversy with other socialist and Marxist groups, remaining small, often marginal, though with some support among the industrial workers of major cities. The First World War gave the Bolsheviks their opportunity. While many of the non-communist socialist parties supported the increasingly unpopular war, Bolshevik demands to end it gained them a hearing outside of their own small circles. The enormous strains of that conflict forced the abdication of the Tsar in February of 1917, placed an ineffective Provisional Government in power, and generated a mounting radicalism, especially among urban workers, women, and soldiers in a losing and demoralized army. In those desperate circumstances, the Bolshevik message of immediate socialist revolution and ending the war gained wider support, allowing that small party to seize state power in October of 1917. Communists now governed the world’s largest country.

Like its Russian counterpart, China’s communist movement came to power during a vast revolutionary upheaval. But that upheaval was far more extended, requiring Chinese communists to struggle for some twenty-eight years (1921–1949) before gaining control of the central state. In the course of that struggle, Chinese communists found their primary source of support among the peasants in the rural areas rather than among urban

workers as the Bolsheviks had. Furthermore, while the Bolsheviks gained credibility by their willingness to leave a disastrous First World War, the Chinese communist movement did so through its vigorous resistance to Japanese imperialism in the Second World War.

Other communist movements came to power in still different circumstances. Those in most of Eastern Europe did so in the immediate aftermath of the Second World War, largely imposed by Soviet forces that had liberated those countries from Nazi occupation. In Yugoslavia, by contrast, local communists had liberated themselves from fascist rule, and on that basis were able to establish an independent communist regime in their country. In Vietnam, a communist party established in 1930 led a successful nationalist struggle against French, Japanese, and later American imperialism, thus ensuring a communist regime in an independent Vietnam. A Cuban communist regime did not derive from a communist movement at all. Rather it was the product of a decision in the early 1960s by Castro's intensely nationalist and vaguely socialist government to align openly with the Soviet Union in the face of American hostility.

Elsewhere communist movements played various roles in political life without achieving state power. Strong electoral showings by French and Italian communist parties after the Second World War, based on their fervent anti-fascist activities during the war, partially motivated US aid to those countries and perhaps stimulated various welfare state measures across Europe, both in an effort to reduce the appeal of communism. During the 1970s, a Euro-communist alliance of French, Italian, and Spanish parties projected an independent "socialism with a human face." In the United States, vastly exaggerated fears of infiltration by a small communist party gave rise to the McCarthy "red scare" in the early 1950s and shaped US political discourse for decades.

An Indonesian communist party took shape during the 1920s, participated actively in the struggle for independence from Dutch rule, and by the early 1960s was the largest non-ruling communist party in the world. Its growing popularity threatened Indonesia's government and military establishment, which unleashed a brutal crackdown in 1965, killing hundreds of thousands of suspected communists and largely destroying the party. A final example of an active but non-governing communist movement comes from Peru, where a Maoist-inspired group, commonly known as the Shining Path, launched in the early 1980s a guerrilla war campaign of assassinations and sabotage that targeted a wide range of people opposed to its extreme ideology. It soon came to exercise control or influence in a substantial area of central Peru,

generating tens of thousands of casualties in the process. The government's efforts to subdue the movement in the 1990s paralleled the violence of the Shining Path. Elsewhere as well, in Nepal, South Africa, and India, for example, self-defined communist movements have participated actively and sometimes violently in their countries' political lives. And in the south Indian state of Kerala, as well as in various French and Italian cities, communist parties have held local power for extended periods.

The major fascist movements that came to power in Italy and Germany, unlike their communist counterparts, did so within existing political frameworks and with the support of mainstream conservative elements. Both movements operated in new states in which liberal parliamentary democracy had not become deeply rooted. The First World War and its aftermath then created the conditions in which these fascist movements took shape – political deadlock, sharp and violent social conflict, and resentments about the Treaty of Versailles.

In Italy, where a fascist movement quickly achieved power by 1922, the immediate postwar years witnessed growing violence amid a wave of strikes and land seizures, and the mounting popularity of Italian socialists, inspired now by the Russian Revolution. Numerous right-wing nationalist groups also surfaced, resentful about the limited territorial gains granted to Italy at Versailles. Into this volatile mix stepped a charismatic journalist and former socialist Benito Mussolini, leader of a revolutionary nationalist movement called the *Fasci Italiani di Combattimento*, established in 1919 and transformed into a more genuine political party in 1921. Mussolini's movement contributed much to the violence of those years, especially in the activities of the Black Shirts, a private paramilitary force of disillusioned veterans and unemployed men. But Mussolini's promise to bring peace and order to a chaotic country also attracted the support of property owners and established authorities. Thus following his unsuccessful but highly threatening March on Rome in late 1922, Mussolini was invited to form a government (Fig. 17.2). The first fascist regime to achieve state power had done so in a quasi-legal fashion.

The rise to power of Germany's Nazi Party occurred in broadly similar circumstances, though it climaxed more than a decade later. In the postwar period, Germans experienced massive inflation, resentful veterans, battling militias of the right and left, an attempted communist takeover in 1919, and a democratic government, tarnished and despised by many for accepting the widely hated Treaty of Versailles. In these conditions a small political party, headed by the charismatic orator Adolph Hitler, took shape. Denouncing



Figure 17.2 Benito Mussolini, the Italian dictator and leader of the Fascist movement, with his generals and Fascist troops as they march on Rome on October 6, 1922 (ZUMA Press, Inc./Alamy)

communists, exploitative capitalists, Jews, and Versailles, Hitler and his Nazi party had attracted some 55,000 members by 1923. Inspired by Mussolini's March on Rome, they attempted a similar coup in Munich, but failed miserably, and Hitler landed in jail for a year, where he wrote his infamous *Mein Kampf*. In the somewhat more stable economic and political conditions of 1924–1929, the Nazis grew slowly, reaching 108,000 members by 1929, though attracting only 2.6 per cent of the national vote in elections of 1928.

It was the Great Depression that gave the Nazis their opening. With massive unemployment, political deadlock, and Nazi and communist militias battling on the streets, Hitler presented his movement as the only genuinely national party able to address the economic crisis and the threat of communism. With the backing of various German bankers, businessmen, and political elites, the Nazis won 37 percent of the vote in 1932, and Hitler was appointed chancellor of a new German government in early 1933. Like Mussolini, he had come to power legally with the support of conservative forces who thought they could use and control him. As the Nazi movement quickly became a regime in power, they soon discovered how wrong they had been.



While fascists achieved state power independently only in these two countries, a combination of the Depression and the vitality of the German and Italian movements generated significant fascist movements in Austria, Spain, Hungary, and Romania. In the more solidly established democracies of Western Europe – France, Great Britain, and Belgium, for example – intellectuals and small numbers of activists presented a fascist or quasi-fascist message with very little real political impact. Elsewhere, in southern and Eastern Europe, Japan, and parts of Latin America, conservative and authoritarian regimes sometimes adopted the trappings of fascism – state-controlled parties, youth organizations or militias, a rhetoric of national renewal, anti-Semitic measures, political relationships with Germany or Italy – but without the genuinely revolutionary element so characteristic, especially of the Nazis. In Japan, for example, numerous radical right-wing movements shared an extreme nationalism, hostility to parliamentary democracy, commitment to elite leadership centered on an exalted emperor, and dedication to foreign expansion. In sharp contrast to developments in Italy and Germany, no such party gained widespread popular support or control of the state. Fascists generally did not understand themselves as part of a global movement as so many communists did for so long. Nothing like the Soviet-sponsored Comintern (1919–1943) and Cominform (1947–1956) arose to co-ordinate the activities of fascist or semi-fascist movements.

### Communism and fascism as regimes

In places where movements became regimes, fascists and communists alike had the opportunity to put their ideologies into practice. In doing so they remade the world of the twentieth century. Italy, Germany, Russia, and China represent the classic examples of this process and provide many occasions for comparison.

The most frequently noted commonalities among all of these regimes are those that distinguish them collectively from liberal democratic societies and from more conventional authoritarian states. Those commonalities have often been subsumed in the much debated concept of “totalitarianism.” At a minimum, it suggests a party-dominated state, led by a single individual with enormous power, which sought to penetrate and control society and individuals in the name of a transformational and utopian ideology. All of these regimes eliminated opposition parties or groups, dominated public communication and education, and created party-controlled mass organizations for young people, women, workers, professional groups, and more.

Thus the sphere of legitimate private and civic life contracted sharply, while that of collective or public life, under the watchful eye of a party/state, grew enormously.

Yet variations abounded. For fascists the supremacy of the state was a core value, although the Nazis privileged the party over the state, at least in theory. "Fascism conceives of the state as an absolute," declared Mussolini, "in comparison with which all individuals and groups are relative . . . The state . . . is a spiritual and moral fact in itself."<sup>7</sup> By contrast, the growth of state power for communists ran against the grain of Marxist ideology with its promise of liberation from coercive authority and the "withering away of the state." Therefore it was rationalized as a temporary necessity owing to the backwardness of Russia and China and their need to catch up with more advanced capitalist countries, which threatened these fledgling revolutions.

Furthermore, in establishing fascist regimes, Italy and Germany tamed, often dominated, and sometimes compromised with traditional institutions and elites, such as the army, church, and bureaucracy, but did not seek to eliminate or completely replace them. Although Italian fascists created the term *totalitarian*, they were the least effective in implementing it, and fascist Italy remained a semi-pluralistic state. Mussolini, for example, came to an agreement with the Vatican in the Lateran Accords (1929), which allowed many Italians to be Catholic and fascist at the same time, though various conflicts between church and state persisted. Stalin's Russia and Mao's China, on the other hand, destroyed their landlord classes, created new military forces, frontally attacked religious institutions, and made strenuous efforts to train their own technical and managerial experts so as to end an embarrassing reliance on "bourgeois specialists."

Such differences in the practice of "totalitarianism" find expression in the kind of control that fascist and communist regimes sought to exercise over the economy. In Italy and Germany alike, the basic elements of a capitalist economy – private property, the profit motive, and market relations – were retained. The state, however, intervened to regulate, control, and direct the economy in the interests of the nation. Public works and military spending, the banning of trade unions and strikes, wage and price controls, protective tariffs and restrictions on imports, the formation of industrial cartels, financial support for various banks and industries – these were among the interventionist techniques that fascist regimes used to manage their economies.

7 Benito Mussolini, *The Political and Social Doctrine of Fascism*, trans. Jane Soames (London: Leonard and Virginia Woolf at the Hogarth Press, 1933).

Communist regimes went much further, essentially eliminating private ownership of productive property. Agricultural lands were seized from their former owners and transformed into state or collective farms. In the Soviet Union that vast transformation took place between 1928 and 1932 against widespread resistance, and was often seen by peasants as a return to serfdom. The corresponding process in China (1952–1956) occurred with much less resistance and violence, owing in part to the long-time presence of the communist party in the countryside. Industry too was removed from private owners, coming under the direct control of state authorities and making every worker a state employee. A series of “five-year plans” detailed every feature of the economy – where factories should be located, what they would produce and in what quantities, to whom they would sell their products and at what price, and how much workers would be paid. In these ways, communist regimes were more “totalitarian” than their fascist counterparts.

All of these “totalitarian” regimes sought to mobilize mass support for and participation in their transformational efforts. But in mobilizing women, fascist and communist regimes differed substantially. Fascists granted women what they regarded as a critical role, though one that was limited and highly circumscribed. Deeply anti-feminist and resentful of the liberating changes that modern life had brought to European women, fascist authorities wanted to limit women largely to the home, removing them from the paid workforce. To Hitler, the state was the natural domain of men, while the home was the realm of women. Even in wartime conditions of labor shortage, Nazi authorities were reluctant to employ women as factory workers. Concerned about declining birth rates, Italy and Germany alike promoted a cult of motherhood, glorifying women who produced children for the state. Mussolini once opined that twelve children was an ideal family size. Financial incentives and public honors were offered to those who produced large families. Accordingly, fascist regimes generally opposed abortion, contraception, family planning, and sex education, all of which were associated with feminist thinking.

Yet such an outlook did not necessarily coincide with puritanical sexual attitudes. In Germany, a state-sponsored system of brothels was initiated in the mid-1930s, for it was assumed that virile men would be promiscuous and that soldiers required a sexual outlet, if they were to contribute to the nation’s military strength. Himmler openly encouraged illegitimate births among Aryans in order to augment the nation’s numbers, and condoms were exempted from a Nazi ban on all contraceptives in 1941. Particularly during the war, Nazi rhetoric about the chaste Aryan family was trumped – or



supplemented – by a concern to use sexuality to advance the cause of the nation.

Communist approaches to mobilizing women operated in a quite different framework, at least initially. Upon seizing power in Russia, the Bolsheviks initiated a remarkable program of state-directed feminism. A series of laws and decrees gave women legal equality and the vote, made marriage a civil procedure and a “free union of equal citizens,” allowed wives to keep their own family names, made divorce easy, legalized abortion, and ended legal discrimination against illegitimate children. An organization called *Zhenotdel* (the Women’s Department) trained women to run their own day-care centers and medical clinics, promoted literacy and pre-natal education for women, invited Muslim women to discard their veils, and in hundreds of conferences for women encouraged them to aspire beyond traditional roles. One *Zhenotdel* publication asked, “Can a woman be a metal worker?” The answer was a decided “Yes.” Something similar took shape in China after the communists came to power in 1949. The Marriage Law of 1950 directly attacked patriarchal and Confucian traditions such as arranged marriages, child brides, and concubinage, while permitting widows to remarry and granting women equal property rights with men.

But communist feminism had its limits as well. In 1930, Stalin declared that the “woman’s question” had been solved, and little public discussion of women’s issues was permitted over the next several decades, while the drive to industrialize took priority. An earlier emphasis on sexual liberation was replaced in the 1930s by an emphasis on a stable family life in which sexuality was subordinated to the great task of “building socialism.” Stalin’s Soviet Union was in some respects more sexually repressive than Hitler’s Germany. Both regimes were willing to sacrifice some core values (a chaste nuclear family for the Nazis and sexual liberation for the Soviets) in order to further pressing national interests.<sup>8</sup> In one respect, however, the difference remained. While fascist policies sought to remove women from the labor force, communist authorities almost everywhere actively encouraged women, including married women, to work outside the home in order to assist the massive economic development efforts that characterized communist regimes. Because those regimes did little to address patriarchy in the

8 David L. Hoffman and Annette F. Timm, “Utopian biopolitics: reproductive policies, gender roles, and sexuality in Nazi Germany and the Soviet Union,” in Michael Geyer and Sheila Fitzpatrick, eds., *Beyond Totalitarianism: Stalinism and Nazism Compared* (Cambridge University Press, 2009), pp. 107–108.

home, women were left with the famous “double burden” of paid labor in addition to housework and childcare.

More than their dictatorial leaders, economic policies, or postures toward women, what distinguished “totalitarian” regimes from other political systems were extreme forms of violence tied to their transformational goals. Informed by an “eschatological ideology of redemption,” those regimes sought to remake their societies, creating a “new man,” a more fully developed human being than the citizens of Western liberal states, exemplified in the racially pure and ruthless SS officer in Germany and the selfless Stakhanovite worker in the USSR. Such efforts, in turn, shaped the kind of violence that these regimes undertook as they reached for a “world cleansed of the excluded.”<sup>9</sup> Those utopian visions, fascist and communist alike, certainly contributed to a willingness to employ the most brutal means to achieve them. For fascists, the celebration of violence and war as ennobling for humankind further justified extraordinary violence, while Marxist notions of bitter class struggle did so for communists.

In Nazi Germany, the excluded or the “unfit” were defined in biological or racial terms, including the mentally or physically handicapped, homosexuals, the Roma, Slavic peoples, and, most prominently, the Jews. Before the war, over 100,000 “incurably sick” and handicapped people were put to death in a program of euthanasia, and tens of thousands of so-called “asocials” – criminals, vagrants, prostitutes, pimps, alcoholics, homosexuals, and “idlers” – were arrested and often placed in concentration camps, where many of them subsequently perished. But it was in the context of war itself that the most horrendous violence took shape, as active persecution and isolation of the Jews within Germany escalated into the Holocaust within the expanding domains of conquered territory. Some 6 million Jews and several hundred thousand Roma perished in an extraordinary effort to wipe entire peoples from the face of the earth. Furthermore, as German control extended over Poland and the western Soviet Union, some 3 million Poles were executed or murdered, another 3 million Soviet POWs died in captivity, about 4 million slave laborers perished amid horrendous conditions, and plans were laid to allow some 30 million to starve to death in the conquered territories in the east<sup>10</sup> – all of this in an effort to open up “living space” for

9 Jörg Baberowski and Anselm Doering-Manteuffel, “The quest for order and the pursuit of terror: National Socialist Germany and the Stalinist Soviet Union as multiethnic empires,” in Geyer and Fitzpatrick, eds., *Beyond Totalitarianism*, p. 180.

10 Stanley G. Payne, *A History of Fascism, 1914–1945* (Madison, WI: University of Wisconsin Press, 1995), p. 382.

German settlers. Nazi violence was thus distinctive in several ways – in its bio-racial definition of the enemy, in its industrialized and clearly genocidal killing machine, and in the absence of any practical political threat to the regime from its victims.

Communist regimes in the Soviet Union and China were likewise permeated by violence, though to different degrees and in different ways. While the Bolshevik takeover in Russia occasioned relatively few casualties, the Civil War that followed (1918–1921) witnessed extreme brutality on both sides, generated perhaps 7–8 million deaths, militarized the communist party, and increased its inclination to resort to force as it sought to restore order to a ravaged country. The collectivization of agriculture (1928–1932) produced another spasm of violence as communist forces overcame resistance to this social upheaval, while labeling the more well-to-do peasants as *kulaks*, most of whom were exiled in remote regions of the country or sent to Gulag labor camps. Some 2 million people died in this process, while another 5 or 6 million perished in the famine that followed. The climax of Stalinist violence occurred in the “Terror” of the late 1930s, when a wide range of “enemies of the revolution” were sent to the Gulag (perhaps 4–5 million), where they were worked, often to death, in horrendous conditions, while close to another million were summarily executed. Adding to the upheavals of the Stalinist era was a series of violent ethnic cleansings that sought to reorder Soviet society in ethnically homogeneous territories, and especially during the war to prevent or punish collaboration with German forces. That the deportation of many millions did not descend into mass murder, as in Germany, owed something to the availability of space in Central Asia where they could be relocated or dumped and left to fend for themselves.

In China, the most extensive violence occurred in the few years after the communist seizure of power in 1949, as the party mobilized the peasants to confront the landlords, seizing and redistributing their property. It was, as Mao put it, “not a dinner party.” Estimates of the number of landlords killed during this process of land reform range between 1 and 2 million. In 1957, some 500,000 people – mostly intellectuals and educated people with opinions critical of the party line – were stigmatized as “rightists,” a label that largely ended their careers. Few such people were executed as so many had been in the USSR during the 1930s; rather they were sent off to labor camps for “re-education” or “sent down” to rural areas for hard work and to “learn from the peasants.” The Great Leap Forward of the late 1950s created gigantic rural “communes” designed to promote both rapid economic development and collective living. That enormously disruptive process, combined with



Figure 17.3 Chinese Red Guards, high school and university students, waving copies of Chairman Mao Zedong's "Little Red Book," parade in Beijing's streets at the beginning of the Great Proletarian Cultural Revolution in June 1966  
(Jean Vincent/AFP/Getty Images)

bad weather, swept some 30 to 40 million people to their deaths in a massive famine, caused in large measure by communist policies. Mao's fear that the Chinese Communist Party was losing its revolutionary edge led to the Cultural Revolution of 1966–1969 in which millions of young people, organized as "Red Guards," went on the attack against "capitalist-roaders," essentially anyone who dissented from the increasingly radical vision of communism that Mao espoused (Fig. 17.3). Perhaps 500,000 people died during this massive upheaval, most of them killed by the armed forces sent to repress the radicalism of the Red Guards, which had brought the country to the brink of civil war. Millions more were scarred for life by the humiliation, torture, and endless confrontations to which they were subjected, even as additional millions were packed off to labor camps or to the villages to perform menial labor. Thus the extent of regime-sponsored killing in China was far less than in the Soviet Union, but the search for "enemies" persisted, and during the Cultural Revolution escaped the control of the authorities in a way that it never did in the USSR.

While both fascist and communist regimes practiced violence and generated social upheaval on an enormous scale, those processes operated differently. Like their fascist counterparts, communist regimes too were driven to violence by perceived threats to utopian visions. In the Soviet Union and China, however, those defined as enemies were primarily internal and were viewed through the prism of class rather than race. While some 96 percent of the victims of Nazi terror were non-Germans,<sup>11</sup> the overwhelming majority of Soviet and Chinese casualties of regime violence were citizens of those countries. Furthermore, many of those victims were ardent communists, high-ranking members of the party, and loyal supporters of the regime. After the “Night of the Long Knives” in 1934, no such action threatened loyal Nazis. Thus Nazi elites enjoyed a security that their communist counterparts under Stalin and Mao could only have envied. Those singled out for exclusion in Hitler’s Germany played no real role in the political struggles of that regime, while in communist countries, some of those identified as “enemies” (Bukharin and Kirov in the USSR; Liu Shaoqi and Deng Xiaoping in China) may arguably have posed an alternative to the policies of Stalin or Mao, though the actual threat they represented to those in power was vastly exaggerated.

Nazi violence was inscribed in its ideology and intrinsic to the regime in a way that communist violence was not. After all, many aspects of Stalinist violence – widespread terror, mass executions, arbitrary arrests, the Gulag camp system – were largely abandoned after the dictator’s death in 1953. And communist “enemies,” unlike those in the fascist world, had some possibility for redemption through labor, self-criticism, or wartime service. Chinese communists especially made great efforts at changing attitudes through an extended process involving public confession, severe self-criticism, punishment, and re-education.

The “totalitarian” label, widely applied to fascist and communist regimes alike, has been subject to considerable criticism and certainly does not exhaust the nature and meaning of those regimes. Fascist Italy, for example, where the term originated, was clearly less totalitarian than either Nazi Germany or the communist states. Mussolini’s power was less absolute than that of Hitler, Stalin, or Mao and depended more on the support of traditional elites. Nor did the Italian regime demand of its own people the extensive personal transformations that were required in these other

<sup>11</sup> Christian Gerlach and Nicolas Werth, “State violence – violent societies,” in Geyer and Fitzpatrick, eds., *Beyond Totalitarianism*, p. 175.

societies. More generally, the assumption of an all-powerful, efficient state utterly beholden to its leader, has crumbled under a growing awareness among scholars of the competing bureaucratic fiefdoms of Nazi Germany, conflicts between center and periphery in the USSR, policy disagreements in Chinese leadership circles, and widespread corruption and opportunism in many places.

Furthermore, while fascist and communist regimes certainly sought total control over individuals and society, achieving it was no easy matter, and some measure of “private life” persisted. Recognition of this reality led these regimes to develop extensive networks of spies or informants – the Stasi in East Germany, for example – to discover what their people were really thinking. Private religious belief and practice proved especially difficult for would-be totalitarian regimes to penetrate. A 1937 census by Soviet authorities revealed that some 57 percent of respondents acknowledged being religious believers,<sup>12</sup> and Hitler’s attack on the churches prompted considerable criticism.

Earlier studies of fascist and communist regimes often portrayed them as governing almost wholly through fear, coercion, and terror. More recent accounts, while in no way denying the massive violence of those societies, have highlighted other and more voluntary sources of support for those regimes. Certainly there were at times some shared values between regime and society – hatred of Versailles in the case of Germany, social equality and the state as a provider of welfare for the Soviet Union, nationalism and anti-imperialism for China.

Furthermore, some people clearly benefited from those regimes – the unemployed who found work in Nazi factories and building projects, the upwardly mobile in Stalin’s USSR, impoverished Chinese peasants who gained access to land. Many people – not least among the socially stigmatized – tried actively to remake their own sense of self in line with the social engineering efforts and ideological goals of their regimes. Thus Soviet urban workers, newly arrived from the countryside, learned to “speak Bolshevik”; people with kulak backgrounds sought to take on proletarian identities; young people from bourgeois families in China became ardent Red Guards; and many Germans, Nazi activists and ordinary people alike, practiced “working towards the Fuhrer” as they sought deliberately to bond with the

12 Sheila Fitzpatrick, “Popular opinion in Russia under pre-war Stalinism,” in Paul Corner, ed., *Popular Opinion in Totalitarian Regimes: Fascism, Nazism, Communism* (Oxford University Press, 2009), p. 19.

national community taking shape around their charismatic leader.<sup>13</sup> Especially among the young, participation in the building of a brave new world generated excitement and a sense of purpose that brought millions into the Hitler Youth organization, sent ardent young Soviet citizens to work in industrial projects such as Magnitogorsk, and motivated equally committed young Chinese cadres into remote villages to conduct land reform. Thus each of the totalitarian regimes enjoyed considerable social support, though it fluctuated and diminished over time.

A final comparison between fascist and communist regimes lies in how they ended or were transformed. Nazi Germany and fascist Italy, of course, perished in military defeat and conquest amid the devastation of their countries. Having shed their intensely nationalist regimes, Italy and Germany then embraced a kind of “cosmopolitan trans-nationalism”<sup>14</sup> as founding members of what later became the European Union. While defeat in the Second World War with its revelations of the Holocaust utterly discredited fascism, victory in that conflict granted to communist regimes in the USSR and China a new source of legitimacy as they added further nationalist and anti-imperialist credentials to their socialist and revolutionary appeal. And those communist societies changed. Contrary to the earlier assumptions that totalitarian regimes were self-perpetuating and lacked the capacity for evolving out of that state, Soviet society after Stalin did in fact discard its more violent and arbitrary features. So too did China after Mao, as a country still governed by a communist party shunned the disruptive upheavals of the Maoist era in favor of stability and economic growth. Furthermore, the world communist movement fragmented as Soviet, Yugoslav, Chinese, and Euro-communist approaches increasingly diverged.

The effective end of communism occurred very differently from that of fascism. Its economic and moral failures had eroded support among both elites and ordinary people while generating movements of reform or outright opposition. In the Soviet case, Mikhail Gorbachev’s efforts to rescue a failing system in the mid-1980s made everything worse. In the end, even the leadership elements had grown so disillusioned that they declined to use the physical forces at their disposal to save the regime from collapse and the country from a negotiated disintegration. In Eastern Europe popular

13 Ian Kershaw, “‘Working towards the Fuhrer’: reflections on the nature of the Hitler dictatorship,” in Ian Kershaw and Moshe Lewin, eds., *Stalinism and Nazism: Dictatorships in Comparison* (Cambridge University Press, 1997), pp. 104–105.

14 Michael Geyer and Sheila Fitzpatrick, “Introduction: after totalitarianism – Stalinism and Nazism compared,” in Geyer and Fitzpatrick, eds., *Beyond Totalitarianism*, p. 33.



movements forcibly overthrew despised governments in the miracle year of 1989. In China, the communist party, while maintaining its hold on power, abandoned almost everything that had been associated with Maoism and led the country, as Mao had feared, onto the capitalist road amid growing material prosperity. While cultural pressures from the West and Cold War military spending had contributed to the mounting problems of communist regimes, the collapse or abandonment of communism was largely an internal process without the prolonged violence that many had feared and without the external military intervention that accompanied the bloody end of fascism.

What followed in Russia, the former republics of the USSR, Eastern Europe, and China was a prickly nationalism amid growing social inequalities. Although long in the making during the communist era, those features of post-communist regimes marked a decisive turning away from the international and egalitarian ideals of their earlier ideologies. Despite remnants of communist rule in China, Vietnam, Cuba, and North Korea, communism as a major source of international conflict, as an alternative form of modernity, and as a path to a better world had passed, like fascism before it, into history.

### Further reading

- Brown, Archie. *The Rise and Fall of Communism*. New York: Ecco, 2009.
- Corner, Paul, ed. *Popular Opinion in Totalitarian Regimes: Fascism, Nazism, Communism*. Oxford University Press, 2009.
- Furet, François, and Ernst Nolte. *Fascism and Communism*. Lincoln, NE: University of Nebraska Press, 2001.
- Geyer, Michael, and Sheila Fitzpatrick, eds. *Beyond Totalitarianism: Stalinism and Nazism Compared*. Cambridge University Press, 2009.
- Kershaw, Ian, and Moshe Lewin, eds. *Stalinism and Nazism: Dictatorships in Comparison*. Cambridge University Press, 1997.
- Neiberg, Michael S., ed. *Fascism*. Aldershot: Ashgate, 2006.
- Payne, Stanley. *A History of Fascism, 1914–1945*. Madison, WI: University of Wisconsin Press, 1995.
- Priestland, David. *The Red Flag: A History of Communism*. New York: Grove Press, 2009.



PART IV

★

WORLD REGIONS



## The Middle East in world history since 1750

JOHN OBERT VOLL

The Middle East “is a focal point of international relations; it is an area that emanates international issues, not an area where they are merely played out. As a bridge between Asia, Africa, and Europe, as the oil-producing center of the world, as a battlefield of opposing nationalisms, as a major area of big-power competition, the Middle East plays a major role in the international system.”<sup>1</sup>

Tareq Ismail’s description of the Middle East, written in the middle of the twentieth century, identifies the key elements of the place of the Middle East in modern world history. The region’s central location in the eastern hemisphere gives it a special significance, both strategic and cultural. Middle Eastern oil is essential to modern industrial society. World views and ideologies articulated in the region have been important elements in world history, from ancient monotheisms to modern radical nationalisms and contemporary religious resurgences. It has been an arena for conflict among major powers from the days of the Egyptian pharaohs and Babylonians to the “Eastern Question” of nineteenth-century imperialism and the current conflicts identified by some as a “clash of civilizations.”

In the modern era, Middle Easterners experienced the changes that transformed societies around the globe. Increasing urbanization changed Middle Eastern societies, as it did other major societies, from social orders with peasant and rural majorities into urban majority societies. The redefinitions of gender roles affected Middle Eastern cultures as it did other regions around the globe. These social changes took different forms in the particular countries within the Middle East, and the Middle East, as a region, did not have a distinctive role in these global societal transformations. The most visible global dimensions of Middle Eastern involvement in modern world history,

1 Tareq Y. Ismael, *The Middle East in World Politics: A Study in Contemporary International Relations* (Syracuse University Press, 1974), p. vii.

as a region, involve its importance in global strategic and political affairs and its significance in the global resurgence of religion in the contexts of globalizing modernity. As a result, this chapter will focus its analysis on the strategic-political and religious-ideological dimensions of modern Middle Eastern involvement in world history.

The Middle East is not an isolated, separate global region; it is an important part of the global network of relationships in the modern era. Distinctively Middle Eastern developments reflect and influence global trends. The demonstrations in Tahrir Square in Cairo and other events of the Arab Spring in 2011 specifically expressed opposition to particular authoritarian regimes. At the same time, these national movements utilized the new tools of protest provided by global electronic social media, giving them worldwide visibility. They were influenced by, and then influenced, other populist protest movements around the world. Global and local elements combined to shape the nature of historical events and movements in the region and in the modern world.

The territorial dimensions of the region are fluid, reflecting the changing nature of the global and regional developments. In the mid-eighteenth century, the region effectively included much of southeastern Europe, which was under Ottoman control. By the twenty-first century, the region called the Middle East by outside analysts and people in the region usually includes the Arab world, Turkey, and Iran, although the label is a term of convenience rather than a carefully defined concept.<sup>2</sup>

One key to understanding modern Middle Eastern history is the changing relationships between foreign powers and regional and local groups. The foreign and domestic-regional elements are often viewed as competing factors, but they are also complementary. The synthesis of the global and the particular or local in world history has been identified, with an awkward but useful neologism: “glocalism.”<sup>3</sup> In this framework, the global and the particular are not opposites. In modern Middle Eastern history, for example, European imperialist policies were often shaped by local and regional responses, just as developing nationalist movements cannot be understood separately from the imperialisms that they were rejecting.

2 John Obert Voll, “The Middle East in world history,” in Jerry H. Bentley, ed., *The Oxford Handbook of World History* (Oxford University Press, 2011).

3 Roland Robertson, “Glocalization: time-space and homogeneity-heterogeneity,” in Mike Featherstone, Scott Lash, and Roland Robertson, eds., *Global Modernities* (London: Sage, 1995), p. 40.

Major events in Middle Eastern history since 1750 illustrate the relationships between the global and the regional. Selected episodes will be discussed in this chapter, showing the complementary connectedness of global and particularist elements. The conclusion is that the distinction between “outside forces” and “regional actors” needs to be supplemented by a sense of how local Middle Eastern developments help to shape global trends, while more cosmopolitan, transregional forces are involved in defining the character of the modern Middle East.

### The Middle East in the eighteenth-century world

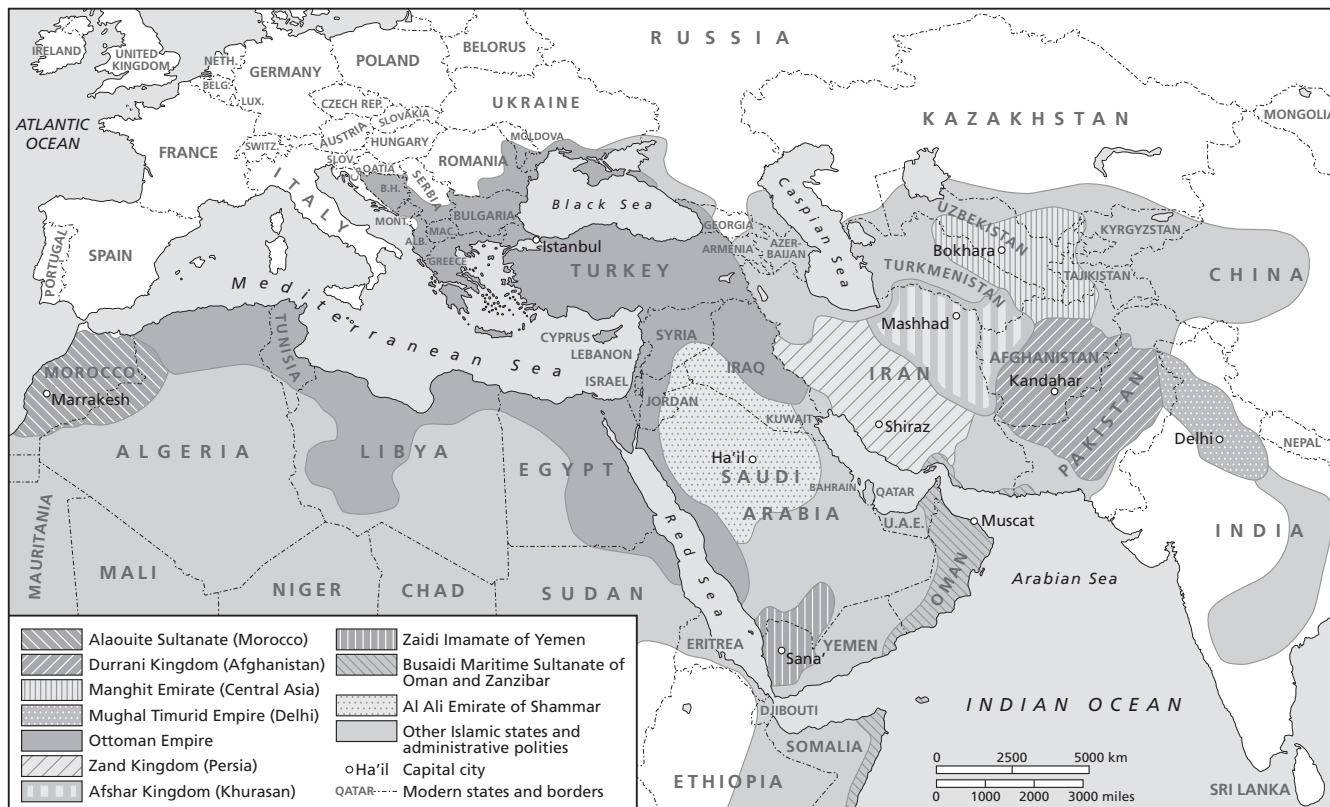
The Middle East was in a period of decline in the eighteenth century, according to many later analysts. However, if there was a major decline of states and a stagnation of culture, it was not necessarily visible to most people at the time.

The Ottoman Empire in 1750 began two decades of peace (Map 18.1). Although the empire lost territories in the Balkans because of wars in Eastern Europe, reformist viziers and sultans kept the central empire firmly intact. At the end of the century, Sultan Selim III (r. 1789–1807) began a major reform program to create a military similar to European models.

In Morocco, Sultan Muhammad ibn Abdullah (r. 1757–1790) confirmed control by the new Alawi dynasty, whose rule continues into the twenty-first century. He was a religious reformer, but his policies also included commercial relations with Europe. As a part of his encouragement of trade, in 1777, Sultan Muhammad became the first head of state to formally recognize the United States, and the two countries signed a treaty regularizing commercial relations in 1786. His general economic policies gave his domestic policies a strongly global dimension.

In Iran, the Safavid Empire collapsed during the first half of the eighteenth century and in mid-century the country was a battleground for ethnic groups and warlords. These conditions did not prevent the expansion of participation by Iran in global trade in products like silk and other textiles. At the end of the century, Agha Muhammad Khan led the Qajars, a tribal confederation in northwest Iran, in conquering the territories of modern Iran. The new Qajar dynasty fought a number of wars with Russia and survived for more than a century, avoiding colonial conquest, and establishing the foundations for modern centralized government in Iran.

The three major states in the Middle East were not simply local powers, preyed upon by outside forces. In their wars, they were allies with some



Map 18.1 Islamic states in 1750 (including modern borders and countries)

European powers and enemies of others. They were part of the global interstate system emerging by the nineteenth century. Like the trade policies of Sultan Muhammad in Morocco, this global involvement shaped domestic policies in each of the countries, and local conditions influenced the ways that states like Russia, Britain, and France developed their policies. The late eighteenth century in the Middle East was not simply an era of losing control to outsiders.

Two events highlight the world-historical position of the Middle East in the second half of the eighteenth century, the Treaty of Küçük Kainarji ending the Russo-Turkish War of 1768–1774 and the invasion of Egypt and Syria by Napoleon in 1798. Later analysts cite both of these events as signs of the decline of Ottoman power, viewing them as developments within the region. However, they also need to be seen in the context of global politics. The Treaty of Küçük Kainarji came just two years after the first partition of Poland and was part of the reshaping of the European balance of power. In contrast to Poland, which lost its independence in the third partition in 1795, the Ottoman Empire lost some territories but survived for a century and a half within the European state system. The Ottomans were part of the broader history of the major multi-ethnic empires including those of Russia and the Habsburgs, sharing many of the same problems and influencing each other with their attempted solutions.

When Napoleon invaded Egypt, an Ottoman province, in 1798, it was part of a global strategy. The French army easily defeated the forces defending Egypt, and some scholars view this as a sign of Ottoman decline. However, Ottoman forces in alliance with British naval power stopped the French invasion of Syria and forced the withdrawal of the French in 1801. The consequences reflect a synthesis of the global and local elements. The Ottoman commander, Muhammad Ali, became the governor of Egypt, ruling from 1805 until 1848. His modernizing reforms gave Egypt virtual independence within the Ottoman Empire and, by the 1830s, Egypt, rather than any European power, posed the strongest threat to the survival of the Ottoman dynasty.

The global-local (glocal) character of the Napoleonic episode set an important framework for “the Eastern Question.” This label is given to the issues involved in the expansion of European power in the territories of the Ottoman Empire. Although the Eastern Question is frequently viewed as primarily an aspect of European diplomatic history, Middle Eastern actors like Muhammad Ali played important roles. Muhammad Ali was transforming Egyptian conditions, and, at the same time, his policies changed British

and French involvement in the region. He challenged the Ottoman Empire by invading the Syrian Province in 1831, ultimately forcing the British to defend the Ottoman sultan and setting in motion the British commitment to the maintenance of the Ottoman Empire. This became a main theme in the diplomacy of the Eastern Question. Middle Eastern developments were major factors in shaping global relations.

The Middle East played a similar role in world economic history. In the eighteenth century, societies around the world were still in the pre-industrial age in terms of sources of energy and economic institutions. No single local economy was in a dominant position in the global networks of trade and commerce. Before the emergence of fossil-fuel dependent industrial societies and the discovery of large petroleum resources in the Middle East, the region's primary importance was what it had been for centuries: as a centrally located transit region in the trade networks of the eastern hemisphere. This factor was important, for example, in Napoleon's decision to invade Egypt, and it was a major element in the prosperity of major cities in the region, like Aleppo, Smyrna/Izmir, and Cairo.

Important religious movements developed in the Islamic world during the eighteenth century. Sufi brotherhoods (*tariqa*hs) were associations for expression of popular piety involving networks of teachers and preachers that spread throughout the Muslim world. While activities in the Middle East were important in these networks, the major brotherhoods were transregional in their importance. In the late eighteenth and early nineteenth centuries, leaders in some of the orders reframed their groups in ways that established movements of religious revival.<sup>4</sup>

The Naqshbandiyyah Tariqah, for example, had its origins in Central Asia and the transregional network of its teachers and centers was an important framework for a number of renewal movements. A Chinese member of the order, Ma Mingxin (1719?–1781), traveled in Central Asia and studied in Yemen and Mecca with teachers associated with the brotherhood. On his return to western China, he led an activist movement of reform in the Muslim community. A later teacher in the order, Khalid al-Baghdadi (1776–1827), established a renewalist sub-order, the Khalidiyyah, which gained followers in Syria and Iraq and in the middle of the nineteenth century provided an organizational base for jihad against Russian imperial expansion in the Caucasus. Other orders had similar histories of transregional influence.

4 John Obert Voll, "Foundations for renewal and reform: Islamic movements in the eighteenth and nineteenth centuries," in John L. Esposito, ed., *The Oxford History of Islam* (Oxford University Press, 1999), pp. 509–547.



Another major movement of religious revival was explicitly anti-Sufi and opposed to many manifestations of popular piety – the movement of Muhammad ibn Abd al-Wahhab (1703–1791). This puritanical teacher joined with an Arab tribal chieftain, Muhammad Ibn Saud, to establish a state in central Arabia and a tradition of rigorous religious reform. This Wahhabi revivalist tradition inspired many activist and sometimes extremist, violent movements throughout modern history, and has become a major part of global relations in the twenty-first century.

The history of the Middle East in the second half of the eighteenth century is an important part of the history of the world. Local developments influenced global relations and the changing nature of global affairs shaped those local developments. However, these relations were within the framework of pre-industrial world history. The transition to modern history becomes a major theme of both Middle Eastern and world history by the beginning of the nineteenth century.

### Nineteenth-century transformations in the Middle East and the world

Societies in the Middle East and the world changed dramatically in the century between the rise of Napoleon in the 1790s and the outbreak of the First World War in 1914. The Industrial Revolution gave global economic and military dominance to Western Europe. The changes transformed political systems in ways that made older regimes vulnerable to overthrow and created the foundations for new political orders. This new world order involved an intensification of the integration of Middle Eastern states and societies into global networks. Comparisons of events in three major states in the Middle East at the beginning and end of the era provide an indication of the nature of the transformations that occurred during the nineteenth century.

Revolts against sultans marked the beginning and end of the century in the Ottoman Empire. Sultan Selim III was overthrown in 1807 by reactionaries opposed to his New Order reform program. Mahmud II (r. 1808–1839) came to the throne after a brief period of disorder and began a reorganization of the state based on the lines of European state development. The reforms were initiated to strengthen central control in the empire and represented the vision of a modernizing but authoritarian elite.

A century later, the autocratic sultan, Abd al-Hamid II (r. 1876–1909), faced a military mutiny in 1908 that set in motion the Young Turk Revolution. The

revolutionaries included constitutionalists, Islamic modernists, ethnic nationalists, and Westernizing technocrats. All of these elements were products of nineteenth-century developments and had had no role in Ottoman politics at the beginning of the century. Liberal constitutionalism replaced authoritarian centralization as the key theme of reform. The Young Turks created the foundations for the modern Turkish republic in the twentieth century.

In Iran, the Qajar conquests brought unity to Iran at the beginning of the nineteenth century. However, the dynasty was unpopular and faced crises related to wars with Russia and diplomatic tensions with European powers. Shi'ism was the religion of the state and the majority of the population, and the religious leaders were a significant force generally beyond the control of the Qajar shahs. By the end of the century, strong movements to limit the powers of the monarchy came together in the Constitutional Revolution of 1905–1911. The Shah was forced to accept a constitution by a revolutionary coalition of Westernizing reformers, major religious leaders, and the merchants controlling the bazaars essential to the Iranian economy. This alliance of social elements is a distinctive product of the history of Iran in the nineteenth century.

The Turkish and Iranian constitutional revolutions were part of a global pattern of liberal revolution against authoritarian regimes in the decade before the First World War. New communications technologies helped revolutionaries around the world to be inspired by their compatriots. The Russian Revolution of 1905 was among the early movements to encourage others. A British diplomat in Iran, for example, reported, “Events in Russia have been watched with great attention, and a new spirit would seem to have come over the people,” while an Ottoman opposition newspaper argued, “If we strive like Russians . . . it won’t be long before we see even the Sultan’s aides-de-camp among our supporters.”<sup>5</sup> Revolutions in Portugal, Mexico, and China, along with those in Russia, the Ottoman Empire, and Iran created an interactive global framework of liberal constitutionalist movements in which the Middle Eastern groups were important participants. These developments initiated a new global-local public sphere which would be the arena for twentieth-century politics.

Morocco’s nineteenth-century history represents a different but equally important trend. At the beginning of the century, under Sultan Suleiman (r. 1792–1822), the Alawi dynasty faced revolts but maintained control over

5 Quoted in Charles Kurzman, *Democracy Denied, 1905–1915: Intellectuals and the Fate of Democracy* (Cambridge, MA: Harvard University Press, 2008), p. 4.

the country. Threats to the dynasty came from within the realm. A century later, sultans were challenged by French and Spanish control over significant parts of Morocco. The monarchy, in addition, incurred significant debt to European financial institutions. The result was the establishment of French and Spanish protectorates in the country in 1912, and the sultans became historic symbols with no actual power.

The model of imperial control by protectorate was already in place in Tunisia, which came under French control in 1881. In contrast, imperialist invasions of Algeria by the French in 1830 and of Libya by the Italians in 1911 created direct colonial administrations that lasted until the middle of the twentieth century. The diverse structures of imperial rule were shaped by the local conditions as well as by imperial design.

Egypt had similarly contrasting developments at the beginning and end of the nineteenth century. Officially, Egypt was part of the Ottoman Empire. However, under the leadership of Muhammad Ali and his successors, it became a virtually independent power in the region. Then in 1882, it was occupied by Great Britain and became a *de facto* part of the British Empire. At the beginning of the First World War, the British declared Egypt to be a protectorate and British troops remained in Egypt until the 1950s.

Like the emergence of constitutionalist movements in the Middle East, the expansions of nineteenth-century European powers in the region were part of a broader global history – European imperial expansion. The interaction of global and regional forces in the Middle East helped to shape both the nature of movements of democratic reform and the character of global imperialist domination.

One visible sign of the integration of the Middle East in global affairs is the Suez Canal. People had considered building a canal connection between the Mediterranean and Red Seas already in ancient times. Even without the canal, the importance of the transit between the two seas was recognized in Napoleon's imperial planning. Entrepreneurs put forward plans during the first half of the nineteenth century, culminating in the completion of the Suez Canal by 1869. The canal rapidly became a vital link in global trade and a central concern of imperial strategies. The British occupation of Egypt in 1882 was justified in terms of defense of imperial communications, especially with India. Even after India's independence following the Second World War, the British participated in an invasion of Egypt to control the Canal in 1956.

In more general terms, most areas in the Middle East experienced a significant increase in international trade. One estimate notes that Ottoman trade increased in value from £T (Ottoman lira) 9 million in 1830 to £T45.9 million in

1910–1913. This increase involved “a shift in trading patterns from one of exchange within the region itself to trade with Europe.”<sup>6</sup> The trade was largely an exchange of primary products for manufacture, reflecting the changing nature of the balance of economic power in global terms.

The Middle East also was part of major ideological and religious developments during the nineteenth century. One of the significant developments was the rise of nationalist feelings and movements around the world. Nationalist movements developed in Western and Central Europe in the eighteenth century, and the ideal spread across the world in the following century. Multi-ethnic empires like the Ottoman and Habsburg empires in Eastern Europe became vulnerable to the challenges of local opposition to central control when those challenges were articulated in nationalist terms.

The First and Second Serbian Uprisings (1804–1815) were early signals of the coming new age. Eventually Serbia became independent when the last Ottoman troops withdrew in 1867. The successful Greek War for Independence, 1821–1830, was closely watched, and aided, by Western Europeans. By the beginning of the First World War, the former Ottoman territories in the Balkans were virtually all under the control of independent, or autonomous, nationally identified states. Major multinational conferences determined many of the new local boundaries, and local conflicts often influenced the policies of the major powers. Most dramatically, the initial spark for the global conflicts of the First World War was the murder of the Archduke Franz Ferdinand of Austria in Sarajevo by a Serbian nationalist from Bosnia in 1914. The global significance of this local nationalist event is a reminder of the “global” nature of modern Middle Eastern history.

Nationalist movements developed more slowly in other parts of the Middle East. By the First World War, Egyptian nationalists had organized a movement and a party opposed to continued British control, but its support came primarily from the educated elite, and a mass nationalist party did not emerge until the end of the First World War. Nationalist ideas were also expressed by small but important groups of Arab intellectuals in Greater Syria, and Turkish nationalist ideas were part of the ideas involved in the Young Turk Revolution.

Among Muslims in the Middle East, Islam provided support for affirmations of identity in the face of European imperial expansion. The sense of identity with the global Islamic community was deeply rooted, and activities

6 Roger Owen and Şevket Pamuk, *A History of Middle East Economies in the Twentieth Century* (London: I. B. Tauris, 1998), p. 4.

like the pilgrimage to Mecca strengthened the sense of the community of believers. Jamal al-Din al-Afghani (1838–1897) articulated this identity in the modern form of pan-Islam, advocating the political unity of states ruled by Muslims. His ideas inspired many, both during his lifetime and later, by providing an alternative to secular nationalist ideas. One of al-Afghani's important associates was Muhammad Abduh (1849–1905), an Egyptian scholar who defined many of the positions at the core of Islamic modernism. He argued that Muslims could be both modern and Muslim, and that Islam and modern science were compatible. The journal *Al-Manar* presented his ideas and was read by Muslims from Java to Morocco.

Modernist thinkers were important in other parts of the Muslim world as well. Sir Sayyid Ahmad Khan in India founded a modern-style Islamic university in Aligarh that established an important Muslim intellectual tradition. In the Russian Empire, Ismail Gasprinskii (1851–1914) worked to create a viable Muslim identity within Russian imperial society. Islamic modernism was a cosmopolitan movement in which the Middle East played an important part. In global terms, Muslim modernists, like the constitutionalists in the Ottoman Empire and Iran, were also part of the more global trends in other religious traditions to create perspectives in which faith can be seen as compatible with modernity.

During the nineteenth century, the older styles of Islamic organizations continued to be of importance. The established universities like al-Azhar in Cairo, the circles of teachers in Shi'ite holy sites in Iraq and Iran, and the scholars from many parts of the world who taught in Mecca and Medina maintained significant influence. Throughout the century, Sufi brotherhoods were more visible in opposition to European imperialist expansion than the nascent nationalist movements. The Qadiriyyah led by Amir Abd al Qadir (1808–1883) was the strongest force opposing the French conquest of Algeria begun in 1830; the Qadiriyyah and Naqshbandiyyah orders were the core of resistance to Russian expansion in the Caucasus; the Sanusiyyah, just before the First World War and in the interwar period, provided the only effective resistance to Italian campaigns in Libya.

Similarly, many observers viewed the Wahhabis, continuing from the eighteenth century in the Arabian Peninsula, as a source of puritanical inspiration for movements of opposition and revolt. Events at the beginning and end of the century directly involving the Wahhabis reflect the transformations of the century. In 1803–1804, the Wahhabis captured the holy cities of Mecca and Medina where they destroyed many monuments of popular religion, including the tomb of the Prophet Muhammad, as being idolatry.

The Wahhabi state was militarily defeated in the following decades, and the Saud family ended the century in exile. In 1902, a Saudi prince, Abd al-Aziz, led a raid and captured Riyadh, beginning the modern Kingdom of Saudi Arabia with an emphasis on state-building rather than puritanical extremism (Map 18.2).

The brotherhoods and the Wahhabis were part of networks that were important in Middle Eastern history, but they were also transregional. Significant ideological developments, whether expressed in terms of popular piety or militant puritanism, were not simply local in their nature. They also involved cosmopolitan, transregional elements of importance in modern world history.

The nineteenth century was a time of transformation in terms of Middle Eastern history. Its major developments in political, economic, and religious terms highlight the synthesis of global and local elements as local groups and individuals participated in transitions that had both local and global significance.

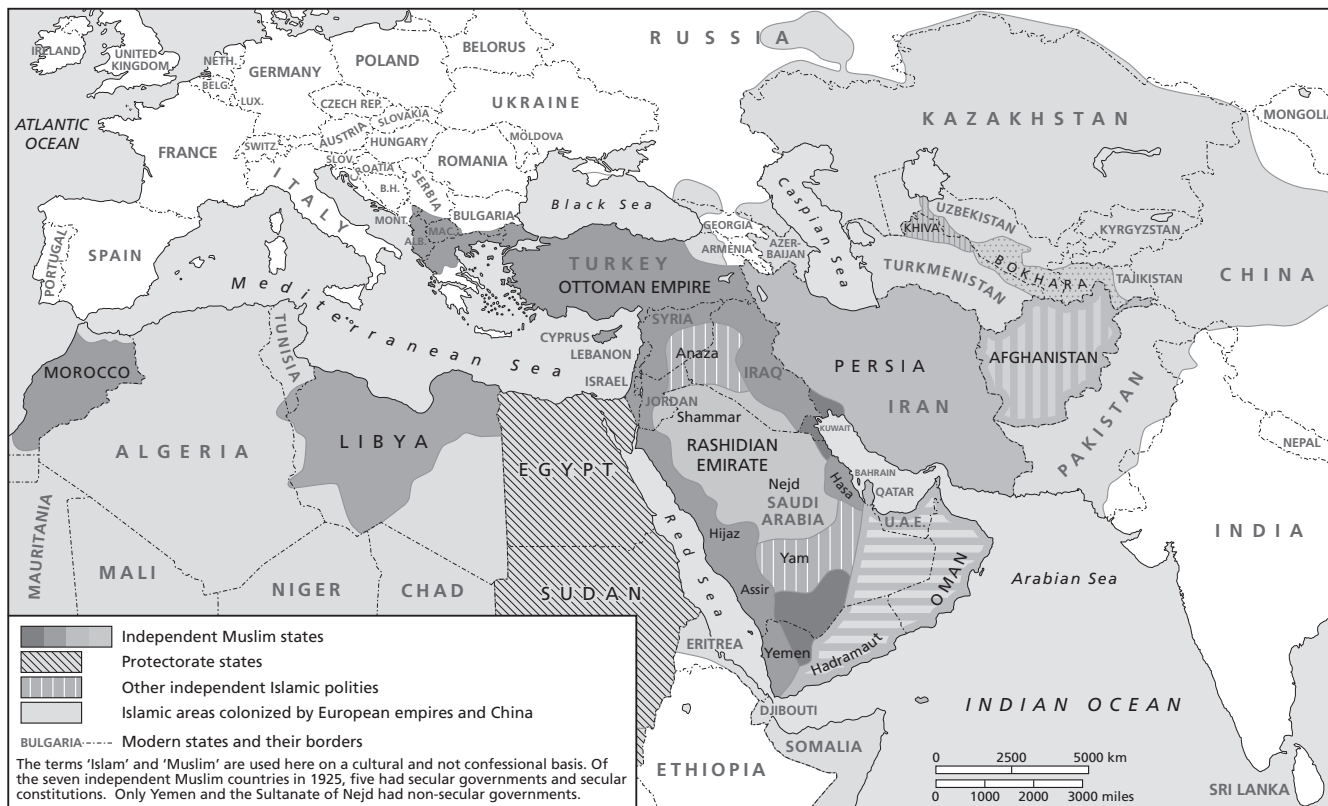
### Empire, independence, and industry: 1914–1956

The Middle East experienced continuing transformations during the first half of the twentieth century. Between the beginning of the First World War and the mid-1950s, old empires disappeared and new political identities were created. The ways of life for most people changed as economies were transformed by newly gained revenues from oil and by rapid urbanization. In ideological terms, Middle Eastern nationalisms reflected global trends of identity politics, and religious movements responded to the challenges of secularism and globalization.

Viewing “contemporary history” in the middle of the twentieth century, world historian Geoffrey Barraclough summarized the global power transformation succinctly: “When the twentieth century opened, European power in Asia and Africa stood at its zenith; no nation, it seemed, could withstand the superiority of European arms and commerce. Sixty years later only the vestiges of European domination remained.”<sup>7</sup>

The First World War marked the end of the multi-ethnic Ottoman, Habsburg, and Russian empires and confirmed the domination of the Middle East by the British and French. This new system created states that

7 Geoffrey Barraclough, *An Introduction to Contemporary History* (Baltimore, MD: Penguin, 1967), p. 153.



Map 18.2 Islamic states in 1900 (including modern borders and countries)

changed the official political identity of people in Syria, Lebanon, Jordan, Palestine, and Iraq. Although communism had some appeal among Middle Eastern intellectuals, Russia had little power in the region until mid-century.

In Iran, a military commander, Reza Khan (1878–1944) overthrew the Qajars in 1925 and became Shah, establishing a new dynasty which maintained formal independence. His rule was authoritarian as he imposed a program of modernizing reforms. However, he could not prevent the occupation of Iran by British and Soviet forces at the beginning of the Second World War and was forced to abdicate in 1941.

The only country to oppose the new imperial domination successfully was the new republic of Turkey established by Turkish nationalists who opposed the First World War settlement. A war for independence against the forces of the Allies, especially Greece, Britain, and France, brought Mustafa Kemal (later Atatürk) to power as president. Kemal abolished the Ottoman sultanate and caliphate, creating a secular republic committed to the modernization of Turkey. The Kemalist state under his leadership was effectively a one-party system centered on the leader.

In the period between the two world wars, Kemal Atatürk and Reza Shah were part of a major global trend. In all of the countries that had experienced liberal constitutionalist revolutions in the decade before the First World War, authoritarian leaders came into control of the governments.

In the Middle East, the first half of the twentieth century was a time of state construction as well as reform. Nationalists worked to gain independence from foreign imperial control. The Second World War provided a major turning point and following the war, virtually all of the European-controlled areas secured independence. Nationalist leaders ruled in most Arab states by the beginning of the 1960s. They were part of the global movement in which at least forty countries with more than a quarter of the world's population became independent between 1945 and 1960.<sup>8</sup>

Although the idea of the nation state was emerging as a defining concept for political activism, the “nation” was not the only basic political identity. For some, religion was the key identity. The emerging Kingdom of Saudi Arabia was based on a religious identity rather than a nationalist one, and the Zionist movement thought in terms of a Jewish homeland and state, achieving its goal with the establishment of the state of Israel in 1948. In the newly created states in Iraq and Transjordan, the core institution was a monarchy based on the Hashemite family, whose prestige rested on being descendants

<sup>8</sup> Ibid.



of the Prophet Muhammad. When Libya was created as an independent state by the United Nations in 1951, it was a monarchy based on the leadership of the Sanusiyyah Tariqah. However, by the 1950s, the nationalist concept of an independent nation state became the most important political vision throughout the Middle East, as it was in most of the rest of the newly independent states around the world.

During the first half of the twentieth century, Middle Eastern social structures and economies were changing in significant ways. These changes are shown in the increasing urbanization of societies and the development of the petroleum industry in the region. In world history, urbanization of human society began in the Middle East, and over the millennia the region has been, until modern times, one of the most urbanized of the world. However, the majority of the population lived in rural areas and engaged in agricultural production. In Western Europe this balance began to change with the Industrial Revolution where urban majorities began to develop in some countries by the early twentieth century. Societies in the Middle East became a part of this global trend during the first half of the twentieth century.

The urban population by 1947 in the larger Middle Eastern countries ranged from 20 percent in Iran to 33 percent in Egypt and 35 percent in Iraq. While this is still a minority of the population, it reflects the virtual doubling of the populations of major cities like Cairo, Aleppo, Baghdad, Tehran, and Ankara in the period between 1914 and 1930, and their continued rapid growth in the following decades.<sup>9</sup> Immigration from rural areas to the cities was part of the changes in rural life as agricultural production became more integrated into national economic networks and as people sought employment in the growing urban industrial complexes. Gradually the old-style conservative peasant was replaced by more entrepreneurial farmers and a generally more mobile population. Rising literacy rates among women and urbanization brought women into the public sphere in ways that strengthened support for women's rights and emerging secular and religious feminist movements.

At the beginning of the twentieth century, petroleum was becoming a major source of energy in societies around the globe. In 1900, the largest oil producing countries were the United States and Russia, accounting for

9 Statistics drawn from Charles Issawi, *An Economic History of the Middle East and North Africa* (New York: Columbia University Press, 1982), p. 199, and L. Carl Brown, "The Middle East: patterns of change 1947–1987," *Middle East Journal* 41:1 (Winter 1987), 28.

almost 95 percent of the relatively small world production, and they continued in mid-century to provide about 60 percent of world production. While the Middle East became an important source for oil exports, the oil industry was only developing in the region during the first half of the century, providing about 20 percent of world production by 1950.<sup>10</sup> The global petroleum industry during this era was shaped by two characteristics: the virtual control of the world oil market outside of the United States and Russia by a group of large Western companies and the domination of all potentially important oil producing countries outside of the United States and Russia by European and American imperial and economic power.

The first commercially exploitable oil field in the Middle East was discovered in 1908 in southwest Iran, and was operated under a concession agreement from the Shah by the newly formed Anglo-Persian Oil Company. Following the First World War, the major oil companies began negotiations for concessions elsewhere in the region, creating company consortia to operate the new fields. After long negotiations, the major companies came to an agreement in 1928 dividing control of the known resources in the newly created Iraq and restricting independent company initiatives elsewhere. Saudi Arabian oil fields began to be developed by American companies in the 1930s, and the Arabian American Oil Company (Aramco) was established as a consortium of four companies by 1948. Elsewhere in the Gulf region, other groupings of Western companies gained control of oil production in Kuwait, Bahrain, and Qatar.

By the 1950s the nature of the oil industry was changing. The original concessions involved payment of royalties by the companies to the host governments. However, in 1948, Venezuela implemented a profit-sharing arrangement with the companies, and the idea soon spread to the Middle East. Saudi Arabia concluded a fifty-fifty profit-sharing agreement in 1950 and Kuwait and Iraq quickly followed. In the era of post-imperial independence, local initiatives were reshaping global relationships. A dramatic expression of this was the nationalization of the Anglo-Iranian [formerly Persian] Oil Company in 1951 by the government of the nationalist premier of Iran, Muhammad Mossadegh. Although the Shah's authority was restored by a coup aided by the United States in 1953, and a new oil agreement was negotiated, the Iranian action signaled a new era, both in global economic relations and in the nature of regional-global politics.

<sup>10</sup> Statistics drawn from American Petroleum Institute sources, cited in Albert L. Danielsen, *The Evolution of OPEC* (New York: Harcourt Brace Jovanovich, 1982), p. 15, and OPEC sources, cited in Issawi, *An Economic History*, p. 199.

During the first half of the twentieth century, nationalist movements in the Middle East, as elsewhere in the world, were primarily striving for self-determination and freedom from imperialist rule. While visions of radical revolutionary change, as advocated by the emerging communist movement, had some appeal, nationalists were more concerned with achieving independence than in social transformation. The nationalist party that emerged in Morocco under the leadership of Allal al-Fasi (1906–1973) worked with the monarchy, viewing Muhammad V as a symbol of the nation. In Egypt, the Wafd, the nationalist party that gained mass following in the 1920s, was a party led by middle class and wealthy Egyptians whose program was independence. Similarly, Shukri al-Quwatli, president of Syria from 1943 to 1949 and 1955 to 1958, was active in anti-French groups and came from a wealthy family in Damascus.

The old-style nationalists were basically successful in achieving independence, but by the 1950s, a new generation of leaders was emerging and presenting visions of revolutionary social change. The military coup in 1952 that brought Jamal Abd al-Nasir (Nasser) to power in Egypt was the most visible sign of this shift to the new radicalism of the second half of the twentieth century.

The transition is exemplified in the Suez crisis of 1956, which involved old and new themes. The new theme was the result of the creation of the state of Israel in 1948, and the beginning of the contemporary Arab–Israeli conflict. Israel invaded Egypt in 1956 in opposition to the activism of Nasser, as a part of the conflict which continues in different forms in the twenty-first century. However, the Suez crisis is also a symbol of the end of the imperialist age. Britain and France also invaded Egypt, in conjunction with Israeli forces, and were forced by threat of sanctions from both the United States and the Soviet Union, along with United Nations condemnation, to withdraw, bringing an end to the era of their dominance in the region.

Religious movements developed alongside nationalist movements during the first half of the twentieth century, advocating religious renewal and social reform. The best-known group is the Muslim Brotherhood, established in Egypt in 1928. In ideology it was an heir to the nineteenth-century modernists, but it created an organizational network providing social services as well as religious instruction. In the early 1950s, some observers saw the Brotherhood as providing a revolutionary alternative to the old regime. However, it was pre-empted by the young military officers around Nasser. The Brotherhood was banned in 1954 but continued as a significant underground movement.

Other Muslim organizations provided important new alternatives to the old-style associations. In Algeria, some of the religious scholars, or ulama, formed the Association of Algerian Ulama as a reformist group which affirmed the Islamic dimensions of Algerian national identity. Among Shi'ites, religious leaders had played an important role in the Constitutional Revolution of 1905–1911 in Iran. Under Reza Shah, some ulama participated in intermittent protests. Following the Second World War, one Ayatollah, Abu al-Qasim Kashani, issued legal rulings or fatwas supporting the nationalization of the oil company. Other groups with long-term significance were not directly involved in politics. In Turkey, Bediuzzaman Said Nursi (1877–1960) gained a large following by encouraging study of the Qur'an from a mystical and modernist perspective, while many Sufi brotherhoods developed devotional practices suitable for modern conditions.

During the first half of the twentieth century the nature of the involvement of the Middle East in modern world history changed dramatically. It began the century as a region dominated by European military and economic power. By the 1950s, new, more urbanized societies were developing and the region's major economic role in global affairs was strengthened by the development of the oil industry. The Suez crisis of 1956 indicated the end of old-style imperialism, while the Iranian nationalization of AIOC and the Egyptian revolution of 1952 reflected the beginning of the new politics of the second half of the twentieth century.

### The accelerated globalization of the Middle East, 1950s–present

The acceleration of globalization in the second half of the twentieth century intensified the processes of change in the Middle East, as it did everywhere in the world. In important ways, Middle Eastern local realities were globalized. In the middle of the century, analysts could discuss distinctive characteristics of the Middle East as a region, within the conceptual framework of scholarly area studies. However, by the twenty-first century, the Middle East, as a region, became more of a geographic location for elements in broader global networks than a clearly identifiable, distinctive, political-cultural entity.<sup>11</sup>

The politics of local independence became embedded in the global dynamics of the Cold War and the ideological competitions of modernization. The oil industry continued to be global in character but the nature of

<sup>11</sup> Voll, "The Middle East in world history," pp. 449–450.

Middle Eastern involvement was transformed. The continuation of social trends like urbanization followed global patterns and were emphasized by significant migrations of workers. Guest workers from Turkey are a significant part of the labor force in Germany, for example, while workers from South and Southeast Asia are a major part of the population of the smaller petroleum states in the Gulf region.

Middle Eastern movements were among the early signs of the global resurgence of religion. In the broadest terms, by the twenty-first century, societies in the region were part of the complex development of multiple modernities within the framework of intensified globalization, creating individuals and societies that were both locally rooted and globally cosmopolitan.

In the 1950s the old rivalries between European empires were replaced by the competition between two new superpowers, the United States and the Soviet Union. Local developments around the world shaped the nature of this new conflict, the Cold War. The issue of the withdrawal of Soviet troops from Iran at the end of the Second World War influenced the firmness of US policy toward the Soviet Union, and the Truman Doctrine in 1947 calling for containment of communism, explicitly called for economic and military aid to Greece and Turkey because of possible local communist threats. The United States supported the creation of what became the Central Treaty Organization (CENTO) in the 1950s, bringing together Turkey, Iran, Pakistan, Iraq, and the United Kingdom in a military alliance aiming at preventing Soviet expansion into the Middle East. Local developments in the Middle East, like the overthrow of the pro-Western monarchy in Iraq in 1958, reduced the effectiveness of CENTO, which was finally dissolved in 1979 following the Islamic Revolution in Iran. Soviet policies were similarly shaped by local events. The rise of radical nationalist leaders in the Arab world in the 1960s provided opportunities for increased Soviet influence.

The Cold War shaped local politics in the region as well. In the 1950s, in the context of a bipolar world, a non-aligned movement (NAM) was organized by leaders of some of the major newly independent countries. An important step was the Bandung Conference of 1955, where Nehru (India), Tito (Yugoslavia), Sukarno (Indonesia), and Nkrumah (Ghana) were joined by Nasser, the new leader of Egypt. The NAM illustrates the shift from regional to global frameworks for politics in the Middle East. The original rationale for the movement ended with the collapse of the Soviet Union in 1991, but the organization was later re-energized as a vehicle for criticism of the major industrialized powers. In his inaugural address for the 2012 Non-Aligned Summit in Tehran, the Ayatollah Khamenei defined the new role in global

terms: "In the recent past, we have been witness to the failure of the policies of the Cold War era and the unilateralism that followed it. Having learnt lessons from this historical experience, the world is in transition towards a new international order and the Non-Aligned Movement can and should play a new role. This new order should be based on the participation of all nations and equal rights for all of them."<sup>12</sup> Distinctive local developments were shaped by and embedded in global frameworks.

An important element in this context was the competition between advocates of radical social change and more conservative programs of reform. Between 1950 and 1970, monarchies were overthrown in Egypt, Iraq, Yemen, and Libya. The new regimes represented a new generation of leaders, coming to power by military coup, and advocating various forms of radical socialism. Monarchies in Morocco, Jordan, Saudi Arabia (and the Gulf region), and Iran responded with social reform programs of their own. The 1960s was an era of competing programs of how to modernize Middle Eastern societies.

By the 1970s, discontent with both the radical and the conservative programs grew, as both paths produced authoritarian regimes. The policies of these regimes of significant state involvement and control of major sectors of the economy were generally unable to meet popular expectations. Economic problems including growing government debt and international trade deficits throughout the region soon brought the involvement of international financial institutions like the International Monetary Fund (IMF). Such institutions required programs of economic "structural adjustment" involving reduction of state subsidies for food and other measures of economic austerity. These policies aroused vigorous opposition. In Egypt, for example, major riots took place in January 1977, when "the Government moved to cut subsidies on a number of popular items such as tea, sugar, bread, cooking oil, butane gas, and cigarettes" because of pressure from the IMF.<sup>13</sup>

Opposition movements began to articulate their visions for a new society in Islamic terms. New austerity measures gave opportunities for Islamic charities and activist organizations to provide services for people neglected by the state. Islamically identified organizations gained political influence in most countries in the region. In Turkey, under the leadership of Necmettin

12 International Dar-ol-Hadith Department, Tehran, "Text of Ayatollah Khamenei's Inaugural Address, August 30, 2012," [international@hadith.net](mailto:international@hadith.net), accessed August 30, 2012.

13 Marvine Howe, "Egypt is uneasy as Sadat juggles promises of peace and prosperity," *New York Times*, August 23, 1977.

Erbakan, the Islamic movement organized the National Salvation Party in 1973 and became a partner in coalition governments. In Egypt, the Muslim Brotherhood gained more freedom of action during the rule of Nasser's successor, Anwar Sadat. These beginnings of an Islamic resurgence are also visible throughout the Muslim world, and were part of the broader religious resurgence in many parts of the world. In the Middle East, a dramatic confirmation of these trends came when Islamic revolutionaries under the leadership of the Ayatollah Khomeini overthrew the Shah of Iran and established the Islamic Republic of Iran in 1979.

In the following decades, Islamic perspectives and groups played increasingly important roles in Middle Eastern politics. In some areas, Islamist groups participated in democratic processes as opportunities opened. The results showed the remarkable strength of the Islamic resurgence. In Algeria, the Islamic Salvation Front was on the verge of winning national parliamentary elections in 1991–1992 until the military intervened to nullify the elections. In Turkey, Erbakan's party won significant support during the 1990s and he was briefly prime minister in a coalition government. In 2002, a successor to Erbakan's party won control of the National Assembly. In Egypt, Tunisia, and Morocco, elections were open to non-extremist Islamic parties, but none succeeded until the remarkable political transformations of the Arab Spring in 2011, after which they gained important victories in the resulting elections.

Militant Islamist groups also emerged as significant elements in local, regional, and global affairs. Marginal groups like those who murdered Sadat in Egypt in 1981 continued to gain notoriety, but the concept of a global jihad emerged in the 1980s during the battle against the Soviet occupation of Afghanistan. A global dimension was added to local anti-Soviet opposition by the recruitment of young fighters from around the Muslim world and by the support given to the mujahidin (jihad warriors) by the United States. The global volunteers provided the beginning for global networks of militants, with the most significant being al-Qaeda. During the 1990s, some of these groups gained notoriety by terrorist attacks ranging from New York City to East Africa and Yemen. The destruction of the World Trade Center on September 11, 2001 ("9/11") and the subsequent response in the US-defined global "War on Terror" provides the most visible example of how local developments in the Middle East became embedded in global frameworks of action.

Even conflicts that had distinctively Middle Eastern roots became quickly part of global affairs. The Arab–Israeli conflict provides a good

example of the glocal nature of major regional conflicts. Following the Second World War, the United Nations divided the British Palestine Mandate area between Israel, a state that was the result of the actions of the global Zionist movement, and Arab-Palestinians. Each major war in this conflict – 1948, 1956, 1967, 1973 – involved not simply the local actors but also the international community. When the first peace treaty was signed, between Egypt and Israel in 1979, it was negotiated under the auspices of President Carter of the United States. Similar negotiations and agreements in the 1990s were also international in character. In the twenty-first century, the local and global continued to be intertwined. Similar global involvement in local conflicts can be seen in the war between Iran and Iraq in the 1980s, in the civil wars in Yemen in the 1960s and Lebanon in the 1970s/1980s, and virtually any other local tension.

The oil industry in the Middle East was part of global networks from the beginning but in the second half of the twentieth century, the nature of those networks was dramatically changed. In mid-century, Middle Eastern oil was controlled by major transnational corporations, but the nationalization of Iranian oil and the emergence of profit-sharing arrangements indicated important changes. In 1959, the major companies unilaterally reduced posted prices of oil, resulting in significant losses of revenue for the governments of the producing countries around the world. This action strengthened existing efforts of co-operation among oil exporting countries, and in 1959, the Arab League organized the first Arab Petroleum Conference (APC) in Cairo, with observers from Venezuela and Iran. In 1960, five major producing countries representing about two-thirds of global known recoverable oil reserves and almost 40 percent of world output – Venezuela, Saudi Arabia, Iraq, Iran, and Kuwait – established the Organization of the Petroleum Exporting Countries (OPEC) as a vehicle for co-ordinating policies and negotiations.

The concept of an Arab regional organization continued with Arab League sponsored congresses, and then the creation of the Organization of Arab Petroleum Exporting Countries (OAPEC) in 1968. OAPEC organized production cuts and selective embargoes during the Arab–Israeli war of 1973–1974, resulting in a major global crisis. However, during the 1970s, the more global OPEC became the major alliance of oil producers. The major change was the end of company dominance and the rise of global, not regional, producer power. Within this framework, the producing companies moved from profit-sharing to becoming national companies co-operating with the older oil companies. Aramco, for example, became wholly Saudi-owned in





Map 18.3 The Middle East today

1980–1981. OPEC came to represent both major local producing companies and states. Again, Middle Eastern local developments became a part of broader global networks (Map 18.3).

Major social changes in the region continued to reflect broader global trends. By the beginning of the twenty-first century, the majority of the world's population lived in urban areas, and Middle Eastern societies were part of this trend. By 2010, in the Arab world, 56 percent lived in

cities,<sup>14</sup> and Iran and Turkey experienced similar urbanization. This development was part of a broader transformation of society. In mid-century, agriculture was a major part of Middle Eastern economies, but by the twenty-first century, the industrial and service sectors accounted for 90 percent of GDP, and agriculture around 10 percent.<sup>15</sup>

One dimension of the changing nature of the workforce is the increasing regional and global mobility of labor. Particularly in oil-producing countries with smaller populations, immigrant labor became an important element in the economy. By 2010, migrant workers were 88, 70, and 69 percent of the total populations in Qatar, the United Arab Emirates, and Kuwait, and almost a third of the population of Saudi Arabia.<sup>16</sup> The existence of this foreign labor force and the revenues from oil exports places effective limitations on the development of democratic political institutions and creates a small class of elite citizens. Labor emigration is also an important factor, with Turkish workers migrating to Germany, where they are 3.4 percent of the population, and North African workers going to France, where they are about 5 percent of the population.<sup>17</sup> Global migration of workers to industrial economies has a long history. For example, in Dearborn, Michigan, home of the Ford Motor Company, the 2000 census reported that 30 percent of the population was of Arab ancestry,<sup>18</sup> with roots in the migration of Arab workers to work in the Ford plant following the First World War. The labor market in the Middle East, as in many other aspects of regional social and political life, is not separately regional but rather, is integrated into broader global developments.

The history of the Middle East in the first decades of the twenty-first century confirms the nature of Middle Eastern history in modern world history. Religious, political, and economic developments involved both distinctively local and broadly global elements. The groups involved in the Arab Spring provide important insights into this combination of global and local. The movements in Tunisia and Egypt began as very local events. The self-immolation in 2010 of Mohamed Bouazizi, a Tunisian street vendor who refused to pay a bribe to a local police inspector, suddenly became a symbol

14 Statistics for the Arab world in this discussion are drawn from United Nations Human Settlement Program (UN-Habitat), *The State of Arab Cities 2012: Challenges of Urban Transition* (Nairobi: UN-Habitat, 2012).

15 Ibid. p. ix, and Alan Richards, John Waterbury, et al., *A Political Economy of the Middle East* (Boulder, CO: Westview Press, 2008), p. 59.

16 UN-Habitat, *State of Arab Cities 2012*, pp. 147, 165.

17 *Encyclopaedia Britannica 2012 Book of the Year* (Chicago: Encyclopaedia Britannica, 2012), pp. 600, 607.

18 U.S. Department of Commerce, *Census 2000 Brief: The Arab Population: 2000* (Washington, DC: U.S. Census Bureau, December 2003), p. 8.

of opposition to the authoritarian regime of Ben Ali. In Egypt, Khaled Said became a similar symbol when he was beaten to death by police in a cybercafé. These two young men were not unique in being repressed by an authoritarian regime, but the new social media enabled the opposition groups in both countries to gain global visibility.

The movements, called the Arab Spring, became a centerpiece among “populist movements” that were “demanding change in nearly every major region of the world” in 2011–2012.<sup>19</sup> The new populism tended to be “leaderless explosions of indignation” which “transcend traditional political boundaries.” The perspectives of the Tunisian and Egyptian revolutionaries were globally cosmopolitan. “Breaking free from older veterans of the Arab political opposition, they relied on tactics of non-violent resistance channeled from an American scholar [Gene Sharp] through a Serbian youth brigade – but also on marketing tactics borrowed from Silicon Valley.”<sup>20</sup> However, their cosmopolitanism was rooted in their Egyptian and Tunisian identities.

Whatever the long-term outcomes of the Arab Spring movements might be, they are part of the global frameworks of modern Middle Eastern history. From the frontier wars of the Ottoman Empire in the eighteenth century to the activists of the Arab Spring in the twenty-first, Middle Eastern history has been an interactive part of the broader narrative of modern world history.

### Further reading

- Abrahamian, Ervand. *A History of Modern Iran*. Cambridge University Press, 2008.
- Barracrough, Geoffrey. *An Introduction to Contemporary History*. Baltimore, MD: Penguin, 1967.
- Bayly, C. A. *The Birth of the Modern World, 1780–1914*. Oxford: Blackwell, 2004.
- Brown, L. Carl. “The Middle East: patterns of change 1947–1987.” *Middle East Journal* 41:1 (Winter 1987), 26–39.
- Clancy-Smith, Julia, and Charles D. Smith. *The Modern Middle East and North Africa: A History in Documents*. Oxford University Press, 2014.
- Danielsen, Albert L. *The Evolution of OPEC*. New York: Harcourt Brace Jovanovich, 1982.
- Esposito, John L., ed. *The Oxford Encyclopedia of the Islamic World*, rev. edn. Oxford University Press, 2009.
- Gelvin, James L. *The Modern Middle East: A History*, 3rd edn. Oxford University Press, 2011.
- Findley, Carter Vaughn. *Turkey, Islam, and Modernity: A History, 1789–2007*. New Haven, CT: Yale University Press, 2011.

19 David Ignatius, “The global discontent,” *Washington Post*, October 16, 2011.

20 David Kirkpatrick and David Sanger, “A Tunisian–Egyptian link that shook Arab history,” *New York Times*, February 13, 2011.

- Hefner, Robert W., ed. *The New Cambridge History of Islam*, Vol. 6: *Muslims and Modernity: Culture and Society Since 1800*. Cambridge University Press, 2010.
- Ismael, Tareq Y. *The Middle East in World Politics: A Study in Contemporary International Relations*. Syracuse University Press, 1974.
- Issawi, Charles. *An Economic History of the Middle East and North Africa*. New York: Columbia University Press, 1982.
- Keddie, Nikki R. *Women in the Middle East: Past and Present*. Princeton University Press, 2007.
- Kurzman, Charles. *Democracy Denied, 1905–1915: Intellectuals and the Fate of Democracy*. Cambridge, MA: Harvard University Press, 2008.
- Lapidus, Ira M. *Islamic Societies to the Nineteenth Century: A Global History*. Cambridge University Press, 2012.
- Lewis, Bernard. *What Went Wrong? The Clash Between Islam and Modernity in the Middle East*. New York: HarperCollins, 2003.
- Macfie, A. L. *The Eastern Question, 1774–1923*, rev. edn. London: Longman, 1996.
- Mitchell, Timothy. *Carbon Democracy: Political Power in the Age of Oil*. London: Verso, 2013.
- Owen, Roger, and Şevket Pamuk. *A History of Middle East Economies in the Twentieth Century*. Cambridge, MA: Harvard University Press, 1999.
- Quataert, Donald. *The Ottoman Empire, 1700–1922*, 2nd edn. Cambridge University Press, 2005.
- Richards, Alan, and John Waterbury. *A Political Economy of the Middle East*. Boulder, CO: Westview Press, 2008.
- Robertson, Roland. “Glocalization: time–space and homogeneity–heterogeneity.” In Mike Featherstone, Scott Lash, and Roland Robertson, eds., *Global Modernities*. London: Sage, 1995, pp. 25–44.
- Robinson, Francis. *The New Cambridge History of Islam*, Vol. 5: *The Islamic World in the Age of Western Dominance*. Cambridge University Press, 2010.
- Rogan, Eugene. *The Arabs: A History*. New York: Perseus, 2009.
- Tucker, Judith. *Gender and Islamic History*. Washington: American Historical Association, 1993.
- United Nations Human Settlement Program (UN-Habitat). *The State of Arab Cities 2012: Challenges of Urban Transition*. Nairobi: UN, 2012.
- United States Department of Commerce. *Census 2000 Brief: The Arab Population: 2000*. Washington, DC: U.S. Census Bureau, December 2003.
- Voll, John Obert. “Foundations for renewal and reform: Islamic movements in the eighteenth and nineteenth centuries.” In John L. Esposito, ed., *The Oxford History of Islam*. Oxford University Press, 1999, pp. 509–547.
- “The Middle East in world history.” In Jerry H. Bentley, ed., *The Oxford Handbook of World History*. Oxford University Press, 2011, pp. 437–454.

## East Asia in world history, 1750–21st century

MARK SELDEN

The rise of China, or better, China's resurgence as an economic colossus and an emerging geopolitical force, has captured world attention and generated controversy since the final decades of the twentieth century. Some view China as the dominant global force shaping the new millennium in the Asia-Pacific and even globally, while others highlight the continued legacy of US hegemony while warning of a looming US–China clash. Little noted and less understood has been the geopolitical and economic resurgence and social transformation of East Asia *as a region* (defined below), a phenomenon without precedent in world history in its scale, speed of advance, and regional character. This chapter, giving pride of place to regional over national and local dynamics, frames the resurgence of East Asia as the most dynamic global region of the world economy since the 1970s in light of its position in two earlier epochs, drawing attention to distinctive features of East Asian regionalism past and present while deconstructing certain mythologies that have accompanied spiraling growth rates across the region.

During much of the first epoch, from 1750 to the early nineteenth century, as in earlier periods, East Asia, with the China-centered tributary-trade system as its major institutional expression, with intra-regional and global linkages via trade and silver exchange, and with shared written language, Confucianism, and political institutions across China, Japan, Korea, and Vietnam, rivaled, and in certain respects surpassed, Europe as a center of power, population concentration, and perhaps even prosperity. In contrast to Europe, at this time much of East Asia experienced protracted peace, with the important qualification that China extended the reach of its empire westward, deep into Inner Asia during the eighteenth century. In the second epoch, from the early nineteenth century to 1970, building on Western economic dynamism and its global reach, large parts of East Asia were conquered by expansive empires (European, and later American and Japanese) or were enmeshed in protracted civil and international wars and

revolutions. In the process, not only were large areas of East Asia subordinated to Western or Japanese power, but the region's character and much of its economic strength were undermined in the wake of the collapse of the Qing dynasty and the regional tributary-trade order.

As much of East Asia experienced invasion, conquest, and decline, new forces emerged including the growing role of overseas Chinese capital linking China and Southeast Asia, Japan's Asia-centered empire, and successive Chinese revolutions. By the early nineteenth century, this would usher in the phenomenon that Kenneth Pomeranz has called the "Great Divergence." "Only after nineteenth-century industrialization was well advanced," Pomeranz writes, "does it make sense to see a single, hegemonic European 'core,'" and conversely, an East Asian periphery that experienced relative decline.<sup>1</sup> As both Pomeranz and R. Bin Wong demonstrate through astute comparisons, it was a divergence that cannot be explained in terms of European exceptionalism given East Asia's earlier robust political economy. The era from the early nineteenth century to 1970 nevertheless transformed the internal dynamics of the region and led to its declining position in the world economy and geopolitics. However, as some important regional bonds within East Asia were severed, new ones formed, and some of the foundations for subsequent resurgence and reknitting were created in the midst of the destructive era of Western imperialism.

What then were the forces that made possible East Asian resurgence and regional dynamism since 1970, at a time when many other macro regions, notably large areas of Africa, Latin America, and the Middle East that had also been subjected to the destructive power of colonialism, remain plagued by deep divisions or the ravages of war? The premise is that the exceptional regional resurgence, economic interpenetration, and protracted peace across East Asia since 1970 are best understood not as the sum of distinct national phenomena but as the product of a single process operating at the world-regional level, and one drawing in part on long-term historical strengths and antecedents. Between 1970 and 1975, the divisions of East Asia in the era of war that spanned the preceding century and a half, and the rift between capitalist and socialist blocs that emerged in the wake of the Second World War and was contested in protracted wars and revolutions in China, Korea, and Indochina, came to an end. This paved the way for China's expansive role

1 Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton University Press, 2000), p. 5. See also R. Bin Wong, *China Transformed: Historical Change and the Limits of European Experience* (Ithaca, NY: Cornell University Press, 1997).

in world politics and economics ushered in by US–China accommodation in the early 1970s, as well as the transformation of China’s collective- and state-centered institutional and social fabric in favor of state capitalism and the market. What followed was the rapid interpenetration of economies previously divided by regional and global conflicts, spurred by the extraordinary growth of both intra-regional and global trade and a shift of the center of world manufacturing from Europe and North America to East Asia, notably Japan, South Korea, and China. If the US–Soviet conflict ended with the collapse of the Soviet empire in 1989–1990, or at least became less central in global geopolitical terms, the primary rift in East Asia, pivoting on the US–China clash, was bridged beginning in the 1970s. In the subsequent era of relative peace, national borders, rather than creating divides, for the most part have served as hot zones facilitating intensified exchange as new railroad and road networks proliferated. The result is that while trade and investment trajectories primarily linked East Asian nations with Western nations prior to the 1970s, by the new millennium the most dynamic bonds were those among East Asian nations, and extending to Southeast Asia, Inner Asia, and South Asia. Notably, these bonds even extended in some cases to political rivals or former rivals, such as the People’s Republic of China and the Republic of China, between the PRC and Japan, and between the PRC and South Korea. Since the 1970s, the resurgence has spanned the entire region, with the most dynamic economic growth and income gains centered initially on Japan, South Korea, Taiwan, Hong Kong, and Singapore, with subsequent economic and geopolitical changes pivoting on China and its economic partners.

Understanding these multiple processes requires integrating politics, society, and economics in a national, regional, and global perspective. In contrast to the autarkic regionalism which Japan sought to impose on East Asia from 1931 to 1945 (culminating in the Greater East Asia Co-Prosperty Sphere of 1940–1945), and the regional divide of the capitalist and socialist blocs in the early postwar years, the contemporary region-in-formaion is notable both for its expansive internal economic and financial bonds as well as its growing importance and the combination of intra-regional and global integration. If this transformation has taken place in an era of intra-regional peace, important conflicts, such as those associated with the unresolved US–Korean War, legacies of the Japanese empire including territorial and historical memory conflicts, and tensions associated with territorial conflicts in the South China Sea and East China Sea, continue to threaten regional order and regional–global peace. The final section of this chapter returns to East Asia, as the most dynamic region of the world economy, but one riven by geopolitical

divisions attendant on a resurgent China bent on challenging a US-dominated regional order, a newly assertive Japan with growing military aspirations, and growing territorial conflicts which threaten to tear the region apart.

### East Asia as a world region

This world-regional approach concurs with Bruce Cumings's assessment that a country-by-country analysis is misleading because it "misses, through a fallacy of disaggregation, the fundamental unity and integrity of the regional effort" that was evident in the eighteenth century, and has gathered momentum while assuming new forms particularly since the 1970s.<sup>2</sup> Following Cumings, the systemic interaction among the countries and between the region and world is placed at the center of the analysis of the interplay of geopolitics and economics that defines a world region in the contemporary era. Looking beyond East Asia to contiguous regions of Inner Asia and Southeast Asia, we adopt Karl Deutsch's conception of world regions as groups of contiguous countries markedly interdependent over a wide range of dimensions that vary in space and evolve over time, such as the rice-centered economies of central and southern coastal China, Japan, and Vietnam on the one hand, and the pastoral-centered economies and societies of the steppes of Inner Asia. The latter complementarities not only played a role in the exchange of food and manufactures of agrarian coastal China for horses from the steppes, but also long shaped the geopolitics of the sub-regions. In the new millennium we will observe new complementarities of agriculture, industry, finance, and resources.

We can state this proposition in different terms. The approach contrasts with the school associated with John Fairbank and much anglophone scholarship emphasizing China's (and Asia's) response to the West as the key to understanding the region's modernization and resurgence.<sup>3</sup> Likewise, it breaks with an essentialist scholarship predicated on the inherent superiority

2 Bruce Cumings, "The origins and development of the northeast Asian political economy: industrial sectors, product cycles, and political consequences," in Frederic C. Deyo, ed., *The Political Economy of New Asian Industrialism* (Ithaca, NY: Cornell University Press, 1987), p. 46.

3 John K. Fairbank, *The United States and China* (Cambridge, MA: Harvard University Press, 1983); Ssu-yu T'eng and John K. Fairbank, *China's Response to the West: A Documentary Survey, 1839-1923* (New York: Atheneum, 1963). See particularly David Landes, *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present*, 2nd edn (Cambridge University Press, 2003); W. W. Rostow, *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge University Press, 1962).



of the West. This approach further differs from Marxist approaches emphasizing the feudal character of Chinese and Asian societies in search of “sprouts of capitalism” at a time of the flourishing of European capitalism in the eighteenth century.<sup>4</sup>

The China-centered perspective on East Asia and the world economy proposed here looks beyond China’s position in the Asian land mass to factor in the importance of the seas prior and subsequent to the nineteenth century Western challenge. In this view, East Asia *qua* region, with China at its core and embracing Northeast Asia and Southeast Asia, played a significant role in regional and world economy and geopolitics through the early nineteenth century. In eighteenth-century East Asia the crucial trajectory was not from tribute to treaties but from tribute to trade (Map 19.1).<sup>5</sup>

### East Asian regionalism: the eighteenth century

The work of Takeshi Hamashita, R. Bin Wong, Kenneth Pomeranz, Kaoru Sugihara, Anthony Reid, Leonard Blussé, and Andre Gunder Frank, among others, demonstrates that between the sixteenth and eighteenth centuries, coinciding with the dawn of European capitalism, East Asia was the center of

4 Albert Feuerwerker and S. Cheng, *Chinese Communist Studies of Modern Chinese History* (Cambridge, MA: East Asian Research Center, 1961); Albert Feuerwerker, ed., *History in Communist China* (Cambridge, MA: MIT Press, 1968).

5 Linda Grove and Mark Selden, “Editors’ introduction: new perspectives on China, East Asia, and the global economy,” in Takeshi Hamashita, *China, East Asia and the Global Economy: Regional and Historical Perspectives* (London: Routledge, 2008), pp. 1–8. For an overview of postwar Japanese scholars and translations of major articles, see Linda Grove and Christian Daniel, eds., *State and Society in China: Japanese Perspectives on Ming-Qing Social and Economic History* (University of Tokyo Press, 1984). This literature, together with a Eurocentric modernization literature, provided the prelude to the revisionist thrust of Hamashita and others examined here. Some researchers such as Victor Lieberman, and Martin Lewis and Karen Wigen, have cast doubt on Southeast Asia’s claim to exist as a world region in its own right, noting the heterogeneous character of its religious, literary, political, and economic heritage as well as its position spanning mainland Asia and across the South China Sea. By contrast, others such as Anthony Reid find a common cultural substratum that provides a regional identity despite multiple external influences and internal differences. Victor Lieberman, “Local integration and Eurasian analogies: structuring Southeast Asian history, c. 1350–1830,” *Modern Asian Studies* 27:3 (1993), 476; Martin Lewis and Karen Wigen, *The Myth of Continents: A Critique of Metageography* (Berkeley, CA: University of California Press, 1997), p. 175; Anthony Reid, *Southeast Asia in the Age of Commerce, 1450–1680*, 2 vols. (New Haven, CT: Yale University Press, 1988 and 1993). Leonard Blussé accepts the eighteenth century as a “Chinese century” in trade, but argues that this had little to do with the tributary system: *Visible Cities: Canton, Nagasaki, and Batavia and the Coming of the Americans* (Cambridge, MA: Harvard University Press, 2008).



Map 19.1 East Asia today

a vibrant geopolitical and economic region that invites comparison with the contemporary West.<sup>6</sup> Two elements of the East Asian order together defined its distinctive regional and global features.

Among the important linkages that shaped the political economy and geopolitics of the East Asian world was the China-centered tributary-trade order, pivoting on transactions negotiated through formal state ties governing political hierarchies and defining regional and subregional order, as well as providing a venue for informal trade conducted at the periphery of tributary missions. The system was also driven by a wide range of legal and illegal trade, much of it linking port cities beyond the borders of the Chinese imperial state. While Korea, Vietnam, the Ryūkyūs, and a number of Central and Southeast Asian kingdoms actively engaged in tributary trade with China, Japan sent no tributary missions in the course of the seventeenth to nineteenth centuries.

China–Japan direct trade nevertheless continued not only through the port of Nagasaki with linkages to the Chinese and Dutch, but also indirectly through the Ryūkyūs, Kyūshū, and Hokkaidō, in addition to coastal trade with China that the Chinese state defined as piracy. In short, despite the imposition of interstate trade restrictions by the Qing and Tokugawa

6 Hamashita, *China, East Asia and the Global Economy*; Giovanni Arrighi, Takeshi Hamashita, and Mark Selden, eds., *The Resurgence of East Asia: 500, 150 and 50 Year Perspectives* (London: Routledge, 2003); Andre Gunder Frank, *ReORIENT: Global Economy in the Asian Age* (Berkeley, CA: University of California Press, 1998); Gary Hamilton, *Commerce and Capitalism in Chinese Societies* (London: Routledge, 2006); Hidetaka Yoshimatsu, *The Political Economy of Regionalism in East Asia: Integrative Explanation for Dynamics and Challenges* (Basingstoke: Palgrave Macmillan, 2008); Mark Beeson, *Regionalism and Globalization in East Asia: Politics, Security and Economic Development* (Basingstoke: Palgrave Macmillan, 2007); Ernst van Veen and Leonard Blussé, eds., *Rivalry and Conflict: European Traders and Asian Trading Networks in the 16th and 17th Centuries* (Leiden: CNVS Press, 2005); Timothy Brook, *The Confusions of Pleasure: Commerce and Culture in Ming China* (Berkeley, CA: University of California Press, 1998); Francesca Bray, *The Rice Economies: Technology and Development in Asian Societies* (Oxford University Press, 1985); Nola Cooke and Li Tana, eds., *Water Frontier: Commerce and the Chinese in the Lower Mekong Region, 1750–1880* (Lanham, MD: Rowman & Littlefield, 2004); Reid, *Southeast Asia in the Age of Commerce*. The issues, including the relationship between tributary and trade networks and the reach of the tributary system, have been sharply debated by historians and economists in symposia in the *Journal of Asian Studies*, *American Historical Review*, and *Modern China*, among others. They have also been examined by a range of Japanese scholars. See, especially, Kaoru Sugihara's edited collection on the links between Japanese development, intra-Asian trade, and the Asian economies, *Japan, China, and the Growth of the Asian International Economy, 1850–1949* (Oxford University Press, 2005). For an important recent Chinese interpretation, see Wang Hui, "The politics of imagining Asia: empires, nations, regional and global orders," *Inter-Asia Cultural Studies* 8:1 (2007), 1–34.

governments, both tributary and informal networks including intercity trade all contributed to East Asia's economic dynamism.<sup>7</sup>

A measure of the influence of the tributary-trade system is that it expanded beyond Chinese reach, taking on a life of its own in defining the geopolitics of East Asia. For example, between the seventeenth and nineteenth centuries, Japan sent no tributary missions, but it covertly manipulated Okinawan tributary missions to China for its own purposes as well as organizing Okinawan tribute embassies to the Tokugawa.<sup>8</sup> Likewise, Vietnam, which sent regular tribute missions to China, established its own sub-tributary order quite independent of China to govern its relations with Laos. Moreover, ports designated for tributary purposes invariably established merchant-driven trade and financial relations with other treaty ports and non-treaty ports.

A notable feature of the regional order is that China subsidized peace and stability through tributary-trade networks over large areas of East, Southeast and Inner Asia. This meant supporting favored local rulers in the interest of regional peace and stability as a guarantee of Chinese primacy. This included assuring a sustained transfer of resources via direct and indirect subsidies and guaranteed access to lucrative tributary-related trade for Korea, Vietnam, and the Ryūkyūs, among others.

In these and other ways, as early as the sixteenth century, a distinctive regional political economy emerged in a relatively prosperous East Asia that was linked to other parts of Asia, the Pacific, Europe, and North America. This is particularly significant in light of the tendency in the reappraisals of imperialism beginning with S. B. Saul, J. Gallagher, R. Robinson, D. C. M. Platt, and David Landes, to slight Asian dynamism, treating Asia in a negative or exclusively reactive fashion, indeed dismissing the East within an East–West binary suggestive of an Orientalist perspective.<sup>9</sup>

Beyond the tributary system and the importance of silver in linking China, East Asia, and the New World from the sixteenth century,<sup>10</sup> is a spatial vision

7 An important issue that I do not address here is the fact that the Qing empire that carried China to a peak of peace and relative prosperity in the eighteenth century was the product of Manchu leadership, thus raising important questions about the multi-ethnic character of the Chinese state and nation, and its relations with Central Asia and the steppe regions generally, as well as with East and Southeast Asia.

8 Takeshi Hamashita, "The Ryukyu maritime network from the fourteenth to eighteenth centuries: China, Korea, Japan, and Southeast Asia," in Hamashita, *China, East Asia and the Global Economy*, pp. 57–84.

9 Alain Gresh, "From Thermopylae to the Twin Towers: the West's selective reading of history," *Le Monde Diplomatique*, January 2009.

10 Dennis O. Flynn, "Silver in global context," in Dennis O. Flynn and Arturo Giráldez, eds., *Metals and Monies in an Emerging Global Economy* (Aldershot: Variorum, 1997).

centered less on national economies and state policies, and more on open ports and their hinterlands. It is an approach that requires new spatial understanding of the relationship between land and sea, between coastal and inland regions, and among port cities and their hinterlands.

Nola Cooke and Tana Li, as well as Charles Wheeler, highlight the autonomous trade patterns that gave rise to the “water frontier” linking southern coastal China and Indochina in the eighteenth century, thereby contributing to the transformation of the domestic economies of the Mekong region.<sup>11</sup> Non-tributary linkages among China, Vietnam, Korea, the Ryūkyūs, Inner Asia, and insular Southeast Asia created extensive trade networks independent, or at the margins, of official tributary missions, all contributing to strengthening regional economic linkages. Frequently, nodes in the tributary-trade system simultaneously provided links to other ports and cities that were largely autonomous from central state controls, to create regional trade networks that could in turn be linked to the world economy. Many of these nodes would emerge with new vigor as global cities in the course of the long twentieth century, notably in the case of Chinese cities including Shanghai, Guangzhou, and Tianjin, as well as Shenzhen, Hong Kong, and Singapore since the 1980s, but also of course Tokyo, Seoul, and others.<sup>12</sup>

At its height in the eighteenth century, large regions of East Asia, with China at the center, experienced a long epoch of peace and prosperity on the foundation of a tributary-trade order at a time when Europe and its colonial peripheries were more or less continuously engulfed by war and turmoil. The point is not to portray a China perpetually at peace and without conquest. Indeed, mainland China’s borders and its territorial claims today are virtually those of the farthest reaches of empire created by the Qing through its expansive thrust into northern and western regions including Tibet, Mongolia, Xinjiang, and Sichuan.<sup>13</sup> It is nevertheless useful to contrast the

11 Cooke and Tana, eds., *Water Frontier*; Charles Wheeler, “Buddhism in the re-ordering of an early modern world: Chinese missions to Cochinchina in the seventeenth century,” *Journal of Global History* 2:3 (November 2007), 281–302, and “Re-thinking the sea in Vietnamese history: littoral society in the integration of Thuan-Quang, seventeenth–eighteenth centuries,” *Journal of Southeast Asian Studies* 37:1 (February 2006), 123–153.

12 See, for example, Saskia Sassen, *The Global City: New York, London, Tokyo*, 2nd edn (Princeton University Press, 2001) and *Cities in a World Economy*, 3rd edn (Thousand Oaks, CA: Pine Forge, 2006).

13 China achieved the peak of territorial expansion during the eighteenth century, extending the reach of empire north and west into Inner Asia including the incorporation of Tibet, Mongolia, and Xinjiang, and China’s informal reach extended into Southeast Asia as well. Most of China south of the Great Wall, and particularly coastal China and much of Southeast Asia, by contrast, enjoyed protracted peace.

dynamics of Chinese and Western empires in the eighteenth century. If tributary and private trade lubricated the regional order in East Asia, so too did common elements of values, politics, written language, and statecraft in the neo-Confucian orders in Japan, Korea, the Ryūkyūs, and Vietnam, including Chinese actions to legitimate or remove leaders of tributary states. In contrast to European colonial conquerors in the eighteenth and nineteenth centuries, this Sinocentric order placed fewer demands for assimilation on the peoples on China's peripheries or incorporated within the empire; the tributary order may have been less exploitative in economic and financial terms; and, at its height, it secured protracted general peace throughout large areas of East and Southeast Asia, with war and conquest confined to the western periphery. As Pomeranz points out, during its century of expansion into Inner Asia, the Qing allocated approximately 50 percent of government expenditures to war while major European states spent 80 percent on war and debt service (largely payments for earlier wars).<sup>14</sup> The situation would reverse in the nineteenth century.

Certain other distinctive features of the regional order at its height prior to the onslaught of European imperialism bear mention. While Mark Elvin saw China caught in a high-level equilibrium trap leaving it unable to compete with a dynamic European capitalism, at least through the eighteenth century and into the early nineteenth century, Kaoru Sugihara and Kenneth Pomeranz have persuasively demonstrated that income and consumption levels in core areas of China and Japan were comparable to those prevailing in Western Europe and North America in the eighteenth century, thus suggesting that neither a high-level trap nor some inherent flaw in Asian political economies, lay behind the superiority of the West at that time.<sup>15</sup> The point is not that the nature of the economies and societies of East and West were identical; rather, the insights of Akira Hayami and Jan de Vries on the demographics of the labor-intensive "industrious revolution," underline the

14 The point is not an essentialist one about war and peace in the Sinocentric and Eurocentric orders: in the nineteenth century, China and its peripheries entered a period of protracted war and subjugation while Europe largely banished warfare to its peripheries.

15 Kaoru Sugihara, "The East Asian path of economic development: a long-term perspective" and Kenneth Pomeranz, "Women's work, family, and economic development in Europe and East Asia: long-term trajectories and contemporary comparisons"; both in Arrighi, Hamashita, and Selden, eds., *The Resurgence of East Asia*, pp. 78–123 and pp. 124–172 respectively. See also Giovanni Arrighi, *Adam Smith in Beijing: Lineages of the Twenty-first Century* (London: Verso, 2007); Mark Elvin, "The historian as haruspex," *New Left Review* 52 (July–August 2008), 83–109; Akira Hayami, "A great transformation: social and economic change in sixteenth and seventeenth century Japan," *Bonner Zeitschrift für Japanologie* 8 (1986), 3–13.

distinctive technological and institutional paths charted by China and Japan, leading to a labor-intensive approach that contrasts with the capital-intensive economy that emerged in eighteenth-century England to power that nation's advance in the age of empire and industrialization.

The Chinese empire, under Manchu rule, may be viewed as the hegemonic power during the long eighteenth century in the sense of being the most powerful state presiding over a protracted peace in large areas of East and Southeast Asia, and legitimating selective regimes throughout the region. China was also the leading manufacturing exporter (silk, tea, porcelain) and a magnet for the world's silver, while radiating cultural-political norms. Where European colonial empires were constructed in the far reaches of the Americas, Africa, and Asia, China's expansive power radiated in its peripheral areas and typically permitted greater autonomy for tributary nations and trade partners. A measure of its strength is that it was not until well into the nineteenth century that expansive Western powers posed a significant military threat to China, and then in a period of advanced dynastic decline.

### The disintegration of East Asia: 1840–1970

The decline and then disintegration of the Qing in the late eighteenth and early nineteenth centuries, including its weakness in the face of conflicts with Burma, Vietnam, and other tributaries, set the stage for the challenge of the imperialist powers that would bring to an end the regional order and the protracted peace that had extended across large areas of East and Inner Asia to parts of Southeast Asia.

As the Chinese state began to weaken internally, its ability to impose order on such neighbors as Vietnam and Burma declined even before the Opium Wars in China and subsequent invasions throughout East and Southeast Asia directly challenged the old order and set in motion myriad fissiparous forces.<sup>16</sup> One consequence of the disintegration of the Chinese state and the tributary order was the migration of tens of millions of Chinese to Manchuria, Southeast Asia, the Americas, and beyond from the second half of the nineteenth century. The destruction of the old order paved the way for the emergence of powerful new forces. Beginning with silver remittances to the coastal communities of South China by overseas workers and

<sup>16</sup> Wensheng Wang, *White Lotus Rebels and South China Pirates: Crisis and Reform in the Qing Empire* (Cambridge, MA: Harvard University Press, 2014).



merchants, migration created foundations for Chinese banking networks at home and abroad. We note the progression from the earlier flow of goods to the flow of silver to the movements of people, and the return flow of goods and silver to China. If the largest number of migrants were Chinese, Japanese and Koreans also migrated across Asia, as well as to Hawai'i and the Americas. Each group created new networks and flows of labor, remittances, and capital. Despite such foundations for regional development, geopolitics trumped political economy. While the Japanese economy soared, much of Asia was subordinated to the colonial powers, giving rise to new bilateral ties while undercutting intra-Asian multilateral relationships associated with the tributary-trade structure.

From the latter half of the nineteenth century, with invasion and successive rebellions paralyzing the Chinese state, much of Southeast Asia was colonized by England, France, Holland, Portugal, Germany, and the United States, while Korea, Taiwan, Hokkaidō, and the Ryūkyūs were incorporated within an expansive Japanese empire by the first decade of the twentieth century. The protracted peace of East Asia in the eighteenth century, grounded in the former tributary-trade order and private trade, gave way to a century-long succession of colonial wars, while the regional order gave way to the predominance of bilateral metropolitan-periphery relations which precluded the re-emergence of a coherent regional economy.

Despite the acquisition of major Pacific territories in Alaska, Hawai'i, and the Philippines, and its emergence as the world's leading industrial power, prior to the Second World War US colonial acquisitions in the Pacific were small compared with those of the leading colonial powers of the era in terms of both territory and population conquered. In the late nineteenth century, Britannia ruled the seas. Between 1870 and 1900, Great Britain added 4.7 million square miles worldwide (more than the total area of the Qing empire), France 3.5 million, and Germany 1 million to their empires. Japan, having quietly annexed Hokkaidō and Okinawa earlier, announced its arrival to the world with decisive military victories over China in 1895, and especially over Russia in 1905, leading to the colonization of Taiwan and Korea. It would continue to face challenges from a Russia (later the Soviet Union) which sought to expand in Mongolia and Manchuria. In the decades after 1895, Japan would place over 1 million square miles under its control in Taiwan, Korea, Micronesia, Manchukuo, and China. By contrast, the United States between 1870 and 1900 added only 125,000 square miles in Hawai'i and the Philippines, and these territories, and the military power



to secure them, were far from being Washington's predominant concern in the decades ahead.<sup>17</sup>

Nevertheless, the simultaneous expansion of Japan and the United States in the half century 1895–1945 would set up the eventual clash of the two most powerful rivals for the Asia-Pacific. In the early decades of the twentieth century, Japan, the only nation of Asia, Africa, or Latin America to join the club of the colonial powers, emerged as the dominant power in East Asia and the challenger to the European-centered colonial order that had ruptured and transformed the region in the nineteenth century.

It is fruitful to compare Japan's approach to regional integration in the years from the First World War through the Asia-Pacific War, when it emerged as the most powerful nation in the region, with that of the eighteenth-century tributary-trade order from three perspectives: first, economic development and social change; second, war, nationalism, and anti-colonialism; and third, regional dynamics and regional ties to the world economy.

Like the Western colonial powers, Japan actively mined the colonies for natural and human resources to spur its own economic growth. At the same time, far more than either the Chinese tributary-trade order or the Western colonial order elsewhere in Asia, Japan fostered colonial agricultural and industrial development, notably in Korea, Taiwan, and Manchukuo, each closely integrated with Japan's agricultural, resource, and industrial requirements. Between the 1920s and 1945, Japan presided over large-scale migration – to Japan (from Korea, Taiwan, and mainland China) and from Japan and its colonies to the farthest reaches of its empire, but above all to Manchukuo in the years 1931–1945.<sup>18</sup> At the same time, Chinese migrants continued their rapid advance throughout Asia and the Americas.

The trade of Manchukuo, Korea, and Taiwan was all dramatically redirected (notably away from China and toward Japan) between the late nineteenth century and the late 1930s. Taiwan's exports to Japan increased from 20 percent of total exports at the time of colonization in 1895 to 88 percent by the late 1930s, with rice and sugar the dominant products.<sup>19</sup> Comparable trade dependence on the metropolis in the late 1930s was similarly notable in the

17 Walter LaFeber, *The American Age: United States Foreign Policy at Home and Abroad Since 1750* (New York: Norton, 1989), p. 213 for US and European colonial figures.

18 Prasenjit Duara, ed., *Decolonization: Perspectives from Now and Then* (London: Routledge, 2004).

19 Samuel Ho, "Colonialism and development: Korea, Taiwan, and Kwantung," in Ramon H. Myers and Mark R. Peattie, eds., *The Japanese Colonial Empire, 1895–1945* (Princeton University Press, 1984), p. 382.

case of Korea.<sup>20</sup> Economic bonds among the colonies, by contrast, remained weak, in part as a result of a lack of complementarities, but above all by imperial design. Like that of the European colonial powers, Japan's spokes-and-wheel trade pattern in Asia precluded the development of trade complementarities or other forms of economic integration among the colonies and dependencies. As Prasenjit Duara emphasizes, it nevertheless paved the way for the postwar developmental state.

In contrast to the Qing empire, imperial Japan directly assimilated colonized and conquered peoples, above all the Koreans, Taiwanese, the multiple peoples of Manchuria (including Mongols, Hui [Muslims], Manchus, and Han), as well as Ainu and Ryūkyūans.<sup>21</sup> The colonized were educated in the language of the conqueror and subjected to intense assimilation as Japanese (or Manchukuo) citizens and subjects, particularly in rapidly growing urban centers. In all these respects, Japan broke sharply with patterns of the tributary-trade order in East Asia. Japan's attempted assimilation of colonized and conquered people, notably in the case of Taiwan, Korea, and Okinawa, went beyond those of European and American colonizers in the degree of assimilation which extended beyond elites to the citizenry writ large.

At its height in the early 1940s, Japan's vast Asia-Pacific empire was an extreme example of regional autarky less by design than by the geopolitics of war. Japan found itself isolated from and denied access to core regions of the world economy dominated by the Allied powers, while simultaneously fighting a costly and debilitating fifteen-year war with China that led to an air and naval battle against the United States and its European allies.<sup>22</sup>

In both the lofty rhetoric of empire and the brutality of the conquest and subjugation of Asian peoples, notably in its war with China but also in battles with rival imperial powers, Japan shared much in common with the Western colonial powers. Features that differentiated the Japanese from Euro-American empires include geography and race. European and American colonialists traveled to the ends of the earth to conquer racially and culturally distinct

20 Anne Booth, "Did it really help to be a Japanese colony? East Asian economic performance in historical perspective," *Asia-Pacific Journal: Japan Focus*, <http://japanfocus.org>, May 7, 2007, table 11.

21 Hui-yu Caroline Ts'ai, *Taiwan in Japan's Empire Building: An Institutional Approach to Colonial Engineering* (London: Routledge, 2009). Given the large number of Chinese and the inability to suppress armed resistance in the years 1937–1945, assimilation of the Chinese was limited.

22 Sven Saaler and J. Victor Koschmann, eds., *Pan-Asianism in Modern Japanese History: Colonialism, Regionalism and Borders* (London: Routledge, 2008); Sven Saaler and Christopher W. A. Szpilman, eds., *Pan-Asianism: A Documentary History*, 2 vols. (Lanham, MD: Rowman & Littlefield, 2011).

peoples. In seeking to subjugate China, Korea, Taiwan, Manchukuo, and Vietnam, and subsequently much of Southeast Asia and India, by contrast, Japan's imperial ideologues highlighted Japanese superiority even as they fought people some of whom (notably Chinese and Koreans) were racially or physically indistinguishable as well as being near neighbors. In China and Korea in particular, those whom Japan sought to subjugate were people whose statecraft, economy, religion, language, and culture had profoundly shaped Japan's historical development over the preceding millennium. This did not, of course, deter Japan from touting Japanese superiority over colonized and subordinated people or brutally suppressing resistance to Japanese rule.

A comparison with European colonialism may clarify several points concerning the nature and consequences of the war that Japan fought against China and then extended to Southeast Asia and the Pacific. Priya Satia observes that "British imaginings about Arabia were circulated in the main by a community of intelligence agents who ventured to the land of the Bible hoping to find spiritual redemption under cover of patriotic duty." This set the stage for analysis of a landmark event in the history of the bombing of civilians, the 1920s British bombing of Iraq. The British bombing of Iraq, and above all the European conduct of the First and Second World Wars in Europe, caution us against assumptions that Japan was uniquely brutal in its treatment of the Chinese in the Sino-Japanese War. It is a reminder that the bombing of civilians began with British, French, and German attacks in the Middle East and Africa long before the Second World War.<sup>23</sup> "Flying in the face of what James Scott has told us about how modern states see," Satia observes of the British, "this regime fetishized local knowledge not as an antidote to but as the foundation of its violent effort to render nomad terrain legible." The deep admiration on the part of many Japanese for Tang poetry and Chinese thought generally no more protected Chinese from Japanese brutality than British awe concerning the Holy Land protected Arab civilians from bombing or their nations from colonization.<sup>24</sup> For Japan, neither racial similarity nor cultural bonds mitigated the onslaught against the Chinese population in a war fought across racial and cultural divides.<sup>25</sup> Indeed, Japan's

23 Yuki Tanaka and Marilyn Young, eds., *Bombing Civilians: A Twentieth-century History* (New York: The New Press, 2009). This excepts bombing of civilians done by German zeppelins (rather than airplanes) in the First World War.

24 Priya Satia, "The defense of inhumanity: air control and the British idea of Arabia," *American Historical Review* 111:1 (2006), 16–51. The author finds it superfluous to remind readers that the same applies to the American war in Iraq eight decades later.

25 John W. Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Pantheon Books, 1986).

China war between 1931 and 1945 exacted the heaviest toll in lives of all colonial wars – between ten and thirty million Chinese deaths being the best estimates available in the absence of official or authoritative statistics.

Perhaps most striking, in contrast to the protracted peace of eighteenth-century East Asia under the earlier tributary order, was the permanent turmoil that extended across the Asia-Pacific region throughout the century of imperialism and continuing in the wake of the Second World War. The protracted era of colonialism and war left three important legacies for Asian peoples: first, massive dislocation, destruction, and loss of life that were the product of colonial wars, internal rebellions, and world wars; second, the stimulus to nationalist and anti-colonial revolutions, initially as a result of Japan's victory over the Western powers from the Russo-Japanese War to the conquests of 1942, and subsequently Japan's own defeat, which propelled national independence and socialist movements and the formation of new nations in the wake of the Pacific War; third, despite the heavy toll of protracted war, commercialization and industrialization proceeded not only in Japan and its colonies and dependencies, notably Korea, Taiwan, and Manchukuo, but also in core regions of China including the Yangzi and Pearl River delta, with ties to Shanghai and Guangzhou, which established foundations for postwar economic growth in these and other areas throughout the Asia-Pacific.<sup>26</sup>

Historians of multiple persuasions have taken the Second World War as the major watershed of twentieth-century Asian and global geopolitics, as indeed it was in so many ways. It marked the defeat and dismantling of the Japanese empire and the rise of the United States as the dominant superpower and major force in the Asia-Pacific and globally. It also touched off or energized waves of nationalist-inspired revolutionary and independence movements that transformed the political landscape of Asia and the Pacific and beyond. If communist-led revolutions in China, Vietnam, and Korea were landmark events in postwar East Asia, independence movements in the Philippines, Malaysia, the Dutch East Indies, Burma, India, and elsewhere brought profound change to other parts of Asia, signaling the end of the classic colonial empires.

From the perspective of Asian regionalism, however, important continuities spanned the 1945 divide. Far from inaugurating an era of peace, the end of the Second World War touched off a new wave of wars and revolutions in

26 David Faure, *The Rural Economy of Pre-liberation China: Trade Expansion and Peasant Livelihood in Jiangsu and Guangdong, 1870 to 1937* (Oxford University Press, 1989); compare with Loren Brandt, Debin Ma, and Thomas G. Rawski, "From divergence to convergence: reevaluating the history behind China's economic boom," *Journal of Economic Literature* 52:1 (March 2014), 5–44.

which East and Southeast Asia was the primary zone of world conflict throughout the following quarter century. US occupation of Japan and South Korea on the one hand, and the Chinese, Korean, and Vietnamese revolutionary wars on the other, produced a cycle of wars that took an immense toll on Asian lives even as they opened new possibilities for the fractured region. The term “Cold War” is singularly inappropriate for the Asia-Pacific region in the period of protracted, large-scale international wars that differentiated Asia from Europe in the post-Second World War milieu.

The Chinese, Korean, and Vietnamese wars and revolutions – playing out within the purview of US–Soviet conflict and giving rise to divided nations – were decisive events establishing Asia’s division and recasting in the wake of the Second World War. New nations, or nation fragments, established primary relationships with one of the superpowers, the United States or the Soviet Union, forging relationships that were paramount in defining each nation’s international relations and economic prospects in the immediate postwar decades. In short, as in the century of colonialism, in post-colonial Asia bilateral ties to one or other of the great powers were critical, and multilateral intra-Asian linkages largely absent, just as they had been throughout the previous colonial epoch. In this postwar disorder, as had been the case over the preceding century, there was scant room for horizontal linkages among Asian nations or Asian societies. At the same time, the combination of the post-colonial order, US aid, market access, and war contracts for favored allies, and the mobilization of resources by new governments in, for example, the two Chinas, the two Koreas, Hong Kong, and Singapore, spurred economic development in a deeply divided region.

### Complementarity and resurgent regionalism in East Asia, 1970 to the present

The postwar resurgence of East Asia since the 1970s was preceded by the rapid economic recovery and growth of key nations in the course of the era of national independence, war, and division. Japan, its economy buoyed by US–Korean war procurements, by the 1960s was well on its way to becoming the world’s number two leading economy, and it was soon followed by the rise of the Newly Industrializing Economies (Taiwan, Hong Kong, Singapore, and South Korea) prior to China’s sustained double-digit growth in GDP and trade in recent decades. While Japan and the newly industrialized countries (NICs) formed a powerful group within the US-led global economy by the sixties, the opening up of relations between the United States and China from

the 1970s was critical in transforming the possibilities for accelerated growth and region formation.

From the Chinese civil war in the wake of Japan's defeat in the Asia-Pacific War, then on through the US–Korean and US–Vietnam wars, the United States sought to isolate and blockade Chinese Communist forces and from 1950, the People's Republic of China, in each instance with active economic, financial, and rear area support of Japan. The end of China's isolation in 1970 with the US–China rapprochement, China's assumption of a UN Security Council seat, its re-emergence with access to US and global markets, and its eventual position at the center of East–West trade and investment, opened the way to the reknitting of economic and political bonds across Asia and strengthening of Asian linkages with the global economy. Among the critical developments of subsequent decades were China's full engagement in, indeed its emergence as the workplace of the world and an important motor driving, the Asian and world economies, the deepening and/or opening up of Japan–China and South Korea–China relations, and the expansive trade and investment role of overseas Chinese in linking China with Asian and global economies. With the reunification of Vietnam (1975), of Germany (1989), and subsequently of China with Hong Kong (1997) and Macau (1999), only a divided Korea and the China–Taiwan division remained of the major national ruptures that were the legacy of the Second World War and other conflicts. Moreover, the China–Taiwan divide has been sharply reduced since the 1990s with economic interpenetration in the form of trade and investment and myriad Taiwan–China formal and informal exchanges. These profound changes illustrate the interface of geopolitics and political economy both in global (particularly US–China–Europe) and regional (China–Japan–Korea as well as mainland China–Taiwan) terms.

Among the remarkable changes wrought by the opening up of relations between the United States and China from the 1970s has been the emergence and deepening of relations between China and the Republic of Korea: from being an anti-communist Mecca, a South Korea that fought China in the US–Korean War and then in the US–Vietnam War, would emerge from the 1980s as one of China's most important trade and investment partners. Indeed, since 2008, China–South Korea trade has outstripped the combined trade of South Korea with Japan and the United States. By 2009, more than 41,000 Korean enterprises operated in China.<sup>27</sup> If China, South Korea, and Japan

27 "South Korea Main Economic Indicators, 2006," [http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc\\_113448.pdf](http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113448.pdf); Scott Snyder and See-Won Byun, "China–ROK trade disputes and implications for managing security relations," *Korean Economic*

became one another's leading trade and investment partners, surpassing in significant ways their trade with the United States, the US remains a decisive factor in the economics and geopolitics of the region. For example, the bulk of South Korean and Japanese exports to China are high-value-added products that are then exported to US and European markets as smart phones, computers, TV sets, and other electronic products.

Since the 1970s, East Asian economies have steadily narrowed the gap with the world's leading economies. In 2013, by IMF reckoning, the United States ranked first in the world in nominal GDP (US\$16.8 trillion), China second (US\$9.2 trillion), Japan third (US\$4.9 trillion), India tenth (US\$1.9 trillion), South Korea fifteenth (US\$1.2 trillion), Taiwan twenty-fifth (US\$.48 trillion), Vietnam fifty-seventh (US\$.17 trillion), and North Korea 119th (US\$.14 trillion). In that year, measured by purchasing power parity (PPP), the United States ranked first (US\$16.8 trillion), China second (US\$13.4 trillion), India third (US\$5.1 trillion), Japan fifth (US\$4.7 trillion), South Korea twelfth (US\$1.7 trillion), Taiwan twentieth (US\$.9 trillion), Vietnam thirty-sixth (US\$.48 trillion). That is, by the measure of purchasing power parity (as opposed to nominal GDP), China, South Korea, and Taiwan all exhibited much greater strength vis-à-vis the United States and Japan.<sup>28</sup> In per capita GDP terms, of course, China ranks far lower and South Korea and Taiwan far higher than their rankings in PPP terms.<sup>29</sup>

Viewed in nominal per capita terms, the resurgence of East Asia is equally apparent, but the relative strengths of individual nations and regions differ substantially. By IMF reckoning, in 2013 the leading nations and regions included the United States ranked 9th (US\$53,100), Japan 24th (US\$38,500), South Korea 32nd (US\$24,300), and Taiwan 37th (US\$20,900). By contrast, China ranked 83rd (US\$6,700), Vietnam 132nd (US\$1,900), India 140th (US\$1,500), and North Korea 171st (US\$600).

In 2013, in PPP terms, the IMF ranking was the United States 6th (US\$53,100), Taiwan 16th (US\$39,800), Japan 22nd (US\$36,900), South Korea

*Institute Academic Paper Series* 5:8 (September 2010), <http://www.keia.org/Publications/AcademicPaperSeries/2010/APS-Snyder-2010.pdf>.

28 [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_%28nominal%29](http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29);

[http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_%28PPP%29#Lists](http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28PPP%29#Lists).

PPP provides a better indicator of total economic output, taking into account relative costs and inflation rates of different countries. PPP calculations permit adjustment for cost of living and inflation among countries. By PPP measures, China's performance appears far stronger.

29 [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_%28nominal%29](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29); [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_%28PPP%29](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28PPP%29). Statistic on North Korea GDP from United Nations.



27th (US\$33,200), China 93rd (US\$9,800), India 133rd (US\$4,100), Vietnam 134th (US\$4,000), and North Korea 167th (US\$2,600).<sup>30</sup> If China has become, in critical ways, the fulcrum of the emerging East Asian regional economy, despite rapid per capita income gains over more than four decades, it continues to lag far behind the most prosperous East Asian nations, whether measured in per capita nominal GDP or PPP terms.

The United Nations Human Development index provides another telling comparative measure of the East Asian resurgence that better indicates the general welfare of the population. The 2013 index is a composite of four measures: life expectancy at birth, mean years of schooling, expected years of schooling, and gross national income per capita. For 2013 the top group of nations included the United States ranked 5th with a composite measure of 0.914, South Korea 15th (0.891), and Japan 17th (0.890), while China was 91st (0.719) in the second group, and Vietnam 121st (0.638), and India 135th (0.586) ranked in the third group.<sup>31</sup> In each of these measures we can chart the resurgence of East Asia compared with the depths to which much of the region had sunk during the earlier era of imperialism.

Another set of issues merits careful attention. Who have been the beneficiaries, who the victims of the resurgence of East Asia etched here? The celebratory literature on the rise of China and/or East Asia characteristically focuses on growth patterns in the realms of trade and investment and ignores the limits of resurgence such as deep internal divisions of wealth and poverty both within and among nations. This phenomenon of rampant and growing income inequalities is taking place across East Asia and the Pacific, but it is particularly notable in China, which but decades earlier was known for high levels of income equality, and the United States. The IMF calculation of the leading economies of East Asia reveals wide differences in per capita GDP (nominal) incomes, spanning a range from the richest nations – Singapore ranked 21st in the world (US\$35,163), Japan, ranked 22nd (US\$34,312), followed by Hong Kong at US\$29,650, Republic of Korea (US\$19,751), and Taiwan (US\$16,606). What particularly merits attention, however, is that, at the other

30 [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_%28nominal%29\\_per\\_capita](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29_per_capita);  
[https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_%28PPP%29\\_per\\_capita](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28PPP%29_per_capita).

Statistic on North Korea per capita GDP in PPP terms is from CIA World Factbook (2013). Statistics rounded to nearest US\$100. North Korea's failure to share in the region's post-1970 economic gains is a direct result of the continuing Korean War, intensified by heavy expenditure for its nuclear program. Six decades after a ceasefire in Korea, there has been no peace treaty and the two Koreas remain divided and hostile while the United States leads the tightening economic blockade of North Korea.

31 <http://hdr.undp.org/en/content/table-2-human-development-index-trends-1980-2013>.



end of the spectrum, as noted above, China and Vietnam had real GDP incomes that were but a fraction of those of Asia's most prosperous nations, and even of their own GDP measured in PPP terms. These more modest incomes and their corollary, the fact that large portions of the population still live in dire poverty, are indicative of the limits of the growth that has been so widely celebrated. We can view this through another lens: China has in recent years produced scores of billionaires ranking in the Fortune 500 while that nation's per capita incomes remain low. The list of countries at the low end of the per capita income spectrum also includes Laos, Burma, Timor-Leste (East Timor), and North Korea among others. By this critical measure, Asia is deeply bifurcated, including some of the world's poorest countries, regions, and sectors (the countryside, minority regions) in the wake of decades of rapid growth.

These developments in industrialization, trade, income, and well-being reflect important geopolitical shifts of recent decades. Consider the trade, investment, and technological partnership that links the Republic of China on Taiwan and the People's Republic of China on the mainland, the two claimants to rule China in the course of civil strife over nearly a century. In less than two decades, the core of Taiwan's high-tech production migrated across the Straits. Taiwanese capital and technology are central to China's industrialization and export drive.<sup>32</sup> The Taiwan-based Foxconn, with 1.4 million industrial workers producing electronic products for Apple, Microsoft, Samsung, Sony, Nokia, and other international giants at numerous locations, is China's, and one of the world's, leading industrial employers. The electronics industry illustrates how international capital, in this case US, Japanese, South Korean, European, and Taiwanese enterprises, dominate and secure the major profits from production in China, while the shares of Chinese labor and enterprises are much smaller. Nevertheless, the relations are symbiotic. Taiwan's economic future rests firmly on the performance of mainland industry, its exports, and the expansion of China's domestic market. With both China and Taiwan entering the WTO in 2001 (the latter, with PRC support, as Chinese-Taipei), China swiftly became Taiwan's leading trade partner and Taiwan enterprises facilitated China's emergence as a leading industrial power.<sup>33</sup> Particularly notable is the economic

32 Yu Zhou, *The Inside Story of China's High-Tech Industry: Making Silicon Valley in Beijing* (Lanham, MD: Rowman & Littlefield, 2008).

33 Yu-huay Sun and Eugene Tang, "Taiwan, China start direct links as relations improve," *Bloomberg*, December 15, 2008, [www.bloomberg.com/apps/news?pid=20601080%026sid=aeoan51P.sBg%026refer=asia](http://www.bloomberg.com/apps/news?pid=20601080%026sid=aeoan51P.sBg%026refer=asia); Jonathan Manthorpe, "China–Taiwan trade agreements complex as shared history," *Vancouver Sun*, May 28, 2012, [www.vancouver.sun.com/business/China%0BrTaiwan%0Btrade%0Btrade%0Bcomplex%0Bshared%0Bhistory/6688830/story](http://www.vancouver.sun.com/business/China%0BrTaiwan%0Btrade%0Btrade%0Bcomplex%0Bshared%0Bhistory/6688830/story).

interpenetration of China and Taiwan facilitated by a worldwide Chinese diaspora linking the two and creating economic and financial ties to Southeast Asia, the US, Europe, and beyond. Nevertheless, competing Chinese nationalisms, as well as Taiwanese nationalism, remain in play even as attempts are made to overcome political divisions through appeals to common goals based in culture and economic interests.

As multilateral intra-Asian trade and investment deepened from the 1970s, so too did the region's ties to Europe and the United States. Trade between the East Asian trade surplus nations and the United States, the world's leading trade deficit nation, presently comprises one of the signature patterns of the contemporary world economic order. The enormous surpluses generated by China, Japan, and South Korea account for the largest part of the massive US trade deficit, and in turn, these nations have made it possible for the United States to continue to live beyond its means as dollar surpluses are recycled back to the United States, primarily in the form of Treasury bonds, but also as direct and indirect investment. Here we see a major role of East Asia's dominant economies in the world economy, one linking East Asian nations across the Pacific to the US and making possible US financial supremacy despite chronic trade deficits. As of April 2014, China was the world leader in holdings of US Treasuries with US\$1.26 trillion, just ahead of Japan with US\$1.21 trillion.<sup>34</sup> In May 2011, the United States underlined China's importance in stabilizing the dollar by allowing it to bypass Wall Street and directly purchase US government debt, the first such special arrangement with any government. In addition to being the largest exporter to the United States, China also has the world's largest trade surplus.<sup>35</sup> In short, China's resurgence as an economic power has rested on symbiosis with the United States and deepening economic ties with many Asia-Pacific and other nations.

Chinese, Japanese, and South Korean purchases of treasury bonds have helped to hold down US interest rates and the yuan-dollar and yen-dollar ratio, boosting the trade and growth of all four economies, and making it possible for the United States to finance the Iraq, Afghanistan, and other wars at the same time that US manufacturing jobs continued their inexorable

html; Michael Roberge, "China-Taiwan relations," Council on Foreign Relations (Backgrounder), August 11, 2009, [www.cfr.org/publication/9223/chinataiwan\\_relations.html#p4](http://www.cfr.org/publication/9223/chinataiwan_relations.html#p4); Manoj Yadav, "International trade in Taiwan and Taiwan China trade relations," Suite 101.com, May 11, 2010 [www.suite101.com/content/international-trade-in-taiwan-and-taiwan-china-relationship-a236159](http://www.suite101.com/content/international-trade-in-taiwan-and-taiwan-china-relationship-a236159).

34 "Major Foreign Holders of Treasury Securities," [www.treasury.gov/ticdata/Publish/mfh.txt](http://www.treasury.gov/ticdata/Publish/mfh.txt).

35 Emily Flitter, "Exclusive: U.S. lets China bypass Wall Street for treasury orders," Reuters, May 21, 2012, [www.reuters.com/article/2012/05/21/us-usa-treasuries-china-idUSBRE84K11720120521](http://www.reuters.com/article/2012/05/21/us-usa-treasuries-china-idUSBRE84K11720120521).

move to China and elsewhere.<sup>36</sup> China's emergence as an industrial center has not occurred at the expense of the international corporate giants such as Apple, Samsung, and Sony, whose goods are produced in China and exported to Europe and North America through Walmart and other giants. Rather, the multinational corporations retain primacy even as manufacturing jobs move from the United States, Japan, and South Korea as well as Germany to China, and as China also becomes a major market for products ranging from capital equipment to smartphones to cars and raw materials.

China's re-entry in the world economy and the formation of a dynamic interconnected East Asian economic zone from the 1970s, coincided with and was made possible by two major developments of global significance. First, with US–China rapprochement and the subsequent collapse of the Soviet empire, the primary global war zone, whose greatest intensity had been in East Asia in the decades beginning in the 1940s – the Pacific War followed by Chinese, Korean, and Indochinese revolutionary wars, as well as independence struggles in the Philippines, Malaysia, and the Dutch East Indies – would shift from East Asia following the US defeat in Vietnam. Since 1975 the epicenter of global warfare has been the Middle East and Central Asia and it continues to be so in the new millennium.<sup>37</sup> If intra-Asian politics remains contentious, the growth and deepening of the Asian regional economy since the 1970s has taken place in the midst of a general peace and widening cultural and economic exchange.<sup>38</sup> The most dangerous conflict in East Asia remains the unresolved Korean War and the continued division of Korea. But territorial conflicts have also surfaced between China and Japan (Diaoyutai/Senkaku islands), between Japan and Korea (Takeshima/Dokdo islands), and between China on the one

36 Mark Landler, "Dollar shift: Chinese pockets filled as Americans' emptied," *The New York Times*, December 25, 2008, [www.nytimes.com/2008/12/26/world/asia/26addiction.html?pagewanted=1%26th%26mc=th](http://www.nytimes.com/2008/12/26/world/asia/26addiction.html?pagewanted=1%26th%26mc=th); R. Taggart Murphy, "Asia and the meltdown of American finance," [http://japanfocus.org/\\_R\\_Taggart\\_Murphy-Asia\\_and\\_the\\_Meltdown\\_of\\_American\\_Finance](http://japanfocus.org/_R_Taggart_Murphy-Asia_and_the_Meltdown_of_American_Finance); Kosuke Takahashi and R. Taggart Murphy, "The US and the temptation of dollar seignorage," [http://japanfocus.org/\\_K\\_Takahashi\\_R\\_T\\_Murphy-The\\_US\\_and\\_the\\_Temptation\\_of\\_Dollar\\_Seignorage](http://japanfocus.org/_K_Takahashi_R_T_Murphy-The_US_and_the_Temptation_of_Dollar_Seignorage); James Fallows, "Be nice to the countries that lend you money," *Atlantic Monthly*, December 2008, [www.theatlantic.com/doc/200812/fallows-chinese-banker](http://www.theatlantic.com/doc/200812/fallows-chinese-banker).

37 The shift to Central Asia and the Middle East certainly seems correct pertaining to American wars, which have been and remain decisive in shaping hegemonic outcomes, but other military conflicts of course continued in Africa and Latin America and the Caribbean.

38 This is not to suggest that rapid economic growth can only occur in a peaceful milieu. Japan's post-Second World War recovery and economic growth was in part a product of an industrialization fostered by the United States as a means to support the Korean and Vietnam Wars. Japan's gain was bought at the price of devastation of Korea and Indochina.

hand and Vietnam and the Philippines among others over the South China Sea. Each of these has the potential to destabilize the region.

A comparison to the colonial era in general, and particularly to a succession of Japanese imperial projects in Eastern Asia from 1931 to 1945 is instructive. First, while Sugihara and others have documented the relatively robust growth of trade in East Asia in the years 1890–1937 and during the early postwar years, this trade was overwhelmingly with the metropolis. By comparison, we note the extraordinarily rapid multi-directional flow of trade and investment among Asian countries in recent decades centered on China, Japan, South Korea, Hong Kong, Singapore, and Taiwan. In the years 1988–2004, as world trade expanded at an annual rate of 9.5 percent, intra-East Asian trade grew at 14 percent per year as East Asia's share of world exports increased by 6 percent. Intra-Asian trade accounted for US\$6 trillion dollars in exports in 2012, 25 percent of total exports and rising. The trade with China of the ASEAN nations rose from 26 percent to 37 percent between 2000 and 2013, while that with the United States fell from 20 percent in 2000 to 10 percent in 2011.<sup>39</sup> By 2010, China had become the leading trade partner of virtually every Asian nation.

Among the historical and contemporary factors facilitating rapid region-wide economic development, industrialization, substantial growth in per capita income, and the formation of a vibrant multi-directional East Asian regional economy, the following seem particularly important:

- The legacy of East Asian human capital, economic and political strengths examined earlier in the epoch of Chinese pre-eminence, protracted peace, and the high levels of development of labor-intensive agriculture, education, and the regional tributary-trade order of the eighteenth century and earlier. These legacies would provide foundations for subsequent development at a time when the resurgence of Chinese economic strength would enable it to emerge at the center of a vibrant East Asian economy.
- The role of the Chinese, Japanese, and Korean diasporas, whose rapid expansion throughout the Asia-Pacific from the nineteenth century forward, extending to North America, Europe, and beyond, would prove central in re-linking intra-Asian and world economies through trade, technology, communication, and investment networks.

39 Douglas H. Brooks and Changchun Hua, "Asian trade and global linkages," *ADB Institute Working Paper* 122 (December 2008); "Intra-regional trade of major regions (1988–2007)," fig. 6, p. 10; "Tapping into Asian trade," *Trade Finance Magazine*, July 17, 2013, [www.tradefinancemagazine.com/Article/3232494/Tapping-intra-Asia-trade-flows.html](http://www.tradefinancemagazine.com/Article/3232494/Tapping-intra-Asia-trade-flows.html).

- Early postwar developmental and social change strategies throughout East Asia predicated on state-led accumulation and investment resting on foundations of egalitarian land reform and promotion of universal education and effective public health programs. These strengths, widely associated with China, were in fact shared with Japan, North and South Korea, and Taiwan. Simultaneously, the states implemented measures that blocked takeover of domestic industry by international capital while creating firm foundations for domestic industry in contrast to many post-colonial areas. These approaches made possible the creation of firm developmental foundations across the communist–capitalist divide that would be strengthened from the 1970s.
- The economic reknitting of the region in the wake of a century of war, finally bridging the divide that we have traced to the era of colonialism and disintegration. One important factor fostering integration has been Chinese construction of roads, railroads, and dams along and across its borders with fourteen nations, but it has also stoked fears of Chinese domination and environmental destruction. In July 2014 China established a won–yuan direct currency exchange that will accelerate the large trade with South Korea. This follows on direct exchange agreements between China and Australia, New Zealand, the United Kingdom, the United States, France, Germany, and others as the Chinese yuan moves toward becoming an international currency.<sup>40</sup>

If intra-Asian factors are of primary importance, the resurgence of East Asia *as a region* has been shaped by global factors, notably the opening up of relations between the United States and China since the 1970s, which made it possible to bridge the divide created during the Korean War and to facilitate East Asia's, and above all China's, rapid advance in the world economy.

As China gained economic strength and experience in world forums from the UN Security Council (1971) to the World Trade Organization (2001), it has spearheaded a number of regional geopolitical initiatives directed toward regional solutions: these include leadership in brokering the Six-Party Talks, beginning in 2003, centered on resolving (to date unsuccessfully) issues of

40 Jiyeun Lee, "South Korea, China to discuss starting direct won-yuan exchange," *Bloomberg*, July 2, 2014, [www.bloomberg.com/news/2014-07-02/south-korea-china-to-discuss-starting-direct-won-yuan-trading.html](http://www.bloomberg.com/news/2014-07-02/south-korea-china-to-discuss-starting-direct-won-yuan-trading.html); "Korea–China agree on won-yuan direct exchange market worth 13.5 trillion won," *Business Korea*, July 4, 2014, [www.businesskorea.co.kr/article/5307/korea-china-summit-korea-china-agree-won-yuan-direct-exchange-market-worth-135-trillion](http://www.businesskorea.co.kr/article/5307/korea-china-summit-korea-china-agree-won-yuan-direct-exchange-market-worth-135-trillion); Xinhua, "Bocom selected to clear yuan in S. Korea," *SinaEnglish*, July 5, 2014, <http://english.sina.com/china/2014/0704/715577.html>.

North Korean nuclear weapons and the ongoing US–Korean war; efforts to bring about an ASEAN+3 arrangement involving China, Japan, and Korea to unify East and Southeast Asia (from 2001); agreement on an ASEAN–China Free Trade Area (2010); and the formation of the Shanghai Cooperation Organization (2001) with China and Russia at its center and including former Soviet states, with discussion underway in 2014 to expand the organization to include India, Iran, and Mongolia.<sup>41</sup>

In the new millennium, East Asian nations have taken steps toward interregional co-operation in numerous areas including economic and financial security, nuclear non-proliferation, resource management, fishing, counter-terrorism, drug smuggling, piracy, human trafficking, organized crime control, disaster relief, environmental degradation, and container security. In contrast to China's centrality in the tributary-trade order of the eighteenth century, Southeast Asian nations, through ASEAN, have played an important proactive role in the emerging regionalism in the new millennium, as in constructing a free trade area. Nevertheless, institutional ties among Asian nations long divided by their locations in disparate colonial empires followed by "Cold War" divisions deepened by hot wars in China, Korea, and Indochina, have been and remain of a very different order from those of the European Union. There is no East Asian Union, no common currency comparable to the Euro, no parliament or high court, and no freedom of migration. In particular, we find no regionwide military equivalent of the NATO alliance. East Asian regionalism will chart its own distinctive course. Regional initiatives can, moreover, be derailed by contentious territorial and historical memory disputes that divide many nations and lead to war.

In the early postwar decades, Japan promoted major regional projects in the realms of finance, trade, and summitry, notably the founding and leadership of the Asian Development Bank in the 1960s, while operating within the framework of American power.<sup>42</sup> With Japan no longer the leader in East Asian trade or in advancing major regionalism projects despite its economic importance, it has virtually disappeared from much analysis of Asian regionalism and global geopolitics. Japan nevertheless remains a regional player of significance.

Japan's relative decline in regional/global perspective is a product of three interrelated factors. First is the surge in China's economic and financial strength over the last two decades, while Japan's economy has not regained

41 M. K. Bhadrakumar, "Modi leads India to the Silk Road," August 7, 2014, [www.rediff.com/news/column/modi-leads-india-to-the-silk-road/20140807.htm](http://www.rediff.com/news/column/modi-leads-india-to-the-silk-road/20140807.htm).

42 Shintaro Hamanaka, *Asian Regionalism and Japan: The Politics of Membership in Regional Diplomatic, Financial and Trade groups* (London: Routledge, 2009), p. 6.

comparable momentum in the following decades since the bursting of the bubble in 1991. Second is Japan's failure to exercise regional leadership in an emerging Asia. Third, Japan's future remains firmly bound by an American embrace rooted in the US–Japan security alliance, which leaves little room for independent Japanese initiatives. At the heart of the relationship are the primary US–Japan economic and security ties, reliance on the US nuclear umbrella, the stationing (at Japanese expense) of US forces on the Japanese mainland and (especially) on Okinawa, and the unquestioning provision of Japanese financial and logistical support for all US wars from the Korean War to those in Iraq, Afghanistan, and the Persian Gulf today. In short, rather than capitalizing on the resurgence of East Asian economies, Japan has remained locked in the American embrace and preoccupied with US wars and geostrategic priorities. Nevertheless, it is important to recognize that for all its extraordinary growth and dynamism, China is at best a middle-income country with enormous pockets of poverty that faces immense environmental constraints on economic growth and problems of internal instability manifested in rising social protest.

Our discussion has emphasized the interplay between the dynamism of East Asian economies and their growing economic integration since the 1970s. Yet even as a dynamic and more integrated East Asian economy emerged in the wake of the US–China opening up and the American defeat in the Indochina Wars, new geopolitical tensions emerged. We can trace the eruption of territorial conflicts in the second decade of the new millennium to four factors: (1) unresolved legacies of the colonial era and the Asia-Pacific War, particularly conflicts between Japan and Korea, and between Japan and China; (2) issues associated with the 1952 San Francisco Peace Treaty system (SFPT) in which the United States established the territorial regime of the postwar Asia-Pacific while leaving unresolved contentious insular disputes; (3) the discovery in the late 1960s of oil, natural gas, and mineral deposits in the East China and South China Seas; and (4) the outcomes of the United Nations Convention on the Law of the Sea in 1982, which touched off a global race to secure island territories and extend the Exclusive Economic Zones of nations. Four ongoing territorial conflicts that have shown the potential to produce large clashes involve small, largely uninhabited islands.<sup>43</sup> These are:

43 These are by no means the only territorial conflicts. They are chosen to illustrate both conflicts that have come to the fore in the new millennium and a particular type of insular conflict which, in principle, should be relatively easy to resolve . . . or would in the absence of nationalism. See Kimie Hara, *Cold War Frontiers in the Asia-Pacific: Divided Territories in*



- The PRC, ROC, and Japan: Senkaku/Diaoyu islets in the East China Sea with Japan holding effective control;
- Japan and Korea: Dokdo/Takeshima in the East Sea/Japan Sea with Korea holding effective control;
- Japan and Russia: Southern Kurile Islands/Northern Territories in the Sea of Okhotsk, four contested islands with Russia holding effective control;
- The PRC and Vietnam/the Philippines, among others in the South China Sea including the Spratly Islands, the Paracel Islands and Scarborough Shoals, each claimed by multiple nations.

In each of these flashpoints the United States has played a critical role, from the framing of the San Francisco Treaty to the present, though it makes no territorial claim in the contested areas. In recent years, not least in response to these disputes, the Obama administration has sought to implement the preliminary stages of a “Pivot to Asia” that is clearly directed at countering China’s geopolitical challenge. This has involved reaffirming and strengthening the position of the United States as the major ally and treaty partner of Japan, Korea, Australia, and the Philippines, even extending US support to Vietnam; strengthening the already formidable US military position resting on a network of bases as well as overwhelming naval, air, and nuclear supremacy in the Western Pacific; and, in the Senkaku dispute, directly challenging the PRC on behalf of a US ally, Japan.

The result of these clashes, particularly the Senkaku dispute involving the PRC and the ROC on the one hand, and Japan on the other, and conflicts involving expansive PRC territorial claims in the South China Sea over territory, boundaries, and oil, have raised the specter of war as the proponents in each case move to strengthen their military posture and seek international, particularly US, support in the case of Japan, South Korea, the Philippines, and Vietnam. To date, none of the issues has precipitated

*the San Francisco System* (London: Routledge, 2007); John W. Dower, “The San Francisco system: past, present, future in U.S.–Japan–China relations,” *Asia-Pacific Journal* 12:8:2 (February 24, 2014), [http://japanfocus.org/-John\\_W\\_Dower/4079](http://japanfocus.org/-John_W_Dower/4079). See also Kimie Hara, ed., *The San Francisco System and its Legacies: Continuation, Transformation and Historical Reconciliation in the Asia-Pacific* (London: Routledge, 2015); Reinhard Drifte, “The Japan–China confrontation over the Senkaku/Diaoyu Islands – between ‘shelving’ and ‘dispute escalation,’” *Asia-Pacific Journal* 12:29:2 (July 28, 2014); Mark Selden, “Economic nationalism and regionalism in contemporary East Asia,” *Asia-Pacific Journal* 10:43:2 (October 29, 2012), <http://japanfocus.org/-Mark-Selden/3848>.



wars, but they are emblematic of a major shift in the political economy and geopolitics of the region at a time of growing Chinese strength and continued US preoccupation with multiple wars in the Middle East and Central Asia.

A critical question concerns the nature and power of the United States in East Asia and the Asia Pacific. David Shambaugh has noted the preponderance of the “US-led security architecture across Asia. This system includes five bilateral alliances in East Asia; non-allied security partnerships in Southeast Asia, South Asia, and Oceania; a buildup of US forces in the Pacific; new US–India and US–Pakistan military relations; and the US military presence and defense arrangements in Southwest and Central Asia.”<sup>44</sup> That formulation can be supplemented by recognizing the importance of multiple US military bases throughout the region and beyond, the US militarization of space where it has a virtual monopoly, its dominance in the realm of high-tech weaponry from nuclear weapons to drones, and the expansive conception of the US–Japan Security Treaty which has led Japan to extend its military reach to the Indian Ocean, to explore security arrangements with India and Australia at a time of growing tensions with China.<sup>45</sup> Whereas the United States possesses far and away the world’s most powerful military arsenal, multiple Pacific bases, security treaties and alliances, and military budgets greater than those of the combined totals of all possible rivals, neither China nor any other Asia-Pacific nation or bloc has a comprehensive security structure that could counter it. Yet even as the United States seeks to cut back on costly wars in Iraq and Afghanistan, a series of other Middle East and Central Asian wars – notably in Syria, Libya, Pakistan, Israel/Palestine, and Iran – continue to beckon. If China is emerging as the only significant potential geopolitical challenger to the United States in the long run, it presently and for years to come lacks the economic or geopolitical power to challenge the United States on a world scale. On the other hand, crises in the East China and South China Seas suggest that China, for the first time in more than a century, may be poised to play a significant geopolitical role in

44 David Shambaugh, “China engages Asia: reshaping the regional order,” *International Security* 29:3 (2004), 64–99.

45 Peter J. Katzenstein, “Japan in the American Imperium: rethinking security,” [http://japanfocus.org/\\_Peter\\_J\\_Katzenstein-Japan\\_in\\_the\\_American\\_Imperium\\_Rethinking\\_Security](http://japanfocus.org/_Peter_J_Katzenstein-Japan_in_the_American_Imperium_Rethinking_Security); Richard Tanter, “The maritime self-defence force mission in the Indian Ocean: Afghanistan, NATO and Japan’s political impasse,” [http://japanfocus.org/\\_Richard\\_Tanter-The\\_Maritime\\_Self\\_Defence\\_Force\\_Mission\\_in\\_the\\_Indian\\_Ocean\\_Afghanistan\\_NATO\\_and\\_Japan\\_s\\_Political\\_Impasse](http://japanfocus.org/_Richard_Tanter-The_Maritime_Self_Defence_Force_Mission_in_the_Indian_Ocean_Afghanistan_NATO_and_Japan_s_Political_Impasse); Mel Gurtov, “Reconciling Japan and China,” [http://japanfocus.org/\\_Mel\\_Gurtov-Reconciling\\_Japan\\_and\\_China](http://japanfocus.org/_Mel_Gurtov-Reconciling_Japan_and_China); Gavan McCormack, “‘Conservatism’ and ‘Nationalism’: the Japan puzzle,” [http://japanfocus.org/\\_Gavan\\_McCormack-Conservatism\\_and\\_Nationalism\\_The\\_Japan\\_Puzzle](http://japanfocus.org/_Gavan_McCormack-Conservatism_and_Nationalism_The_Japan_Puzzle).

areas close to its borders, and to challenge the postwar regional order crafted by the United States. These are areas that coincide with the parameters of the earlier China-centered tributary-trade system, but the nature of the international relations of the area in the future can be expected to rest on quite different principles.

## Conclusion

The combination of deepening intra-regional economic, financial, transportation and communication, and cultural bonds in the world's most dynamic economic zone, together with regionwide efforts that have begun to confront acute environmental, territorial, and security issues, suggests possible futures compatible with reduced US- and US-Japan-dominated dynamics and momentum toward expanded regional co-ordination. If, that is, growing geopolitical conflicts associated with the resurgence of Chinese power and the divisive consequences of both the San Francisco Peace Treaty system, UNCLOS, and unresolved legacies of divided nations (Korea and China/Taiwan), as well as historical memory issues that pit Japan against her neighbors over unresolved issues that are the legacy of the epoch of colonialism and war, can be overcome.

Does the earlier Pax Sinica offer insights into the possibilities for regional harmony or hegemony in a period of peace in East Asia in the new millennium? It was, of course, a hierarchical model predicated on a China-centered order, yet one that was far less intrusive than the colonial order that followed. At its height in the eighteenth century, large parts of East Asia enjoyed an era of protracted peace and relative prosperity in core areas, fueled in part by exchange through tributary-trade bonds and a favorable position in world trade networks. Yet it was also in the eighteenth century that China expanded its territory through conquest of its Western and Northern periphery. Both the subsequent colonial models, including the Japanese empire, and US-centered models, for all their dynamism, proved incapable of ending endemic war or creating effective regional bonds. Each prioritized bilateral relations with the metropolitan power during epochs of permanent warfare. If the emergence of wide-ranging and deep mutual economic relations across East Asia, including but not limited to the greater China constellation comprised of both China and the Chinese diaspora, provides foundations for a new regional order, China will surely be central to it. In contrast to the eighteenth century, however, after decades of high-speed growth, China remains far behind such major competitors as Japan and the United States in its level of

development as measured by per capita income. Equally important are China's deep developmental and socio-political problems, including severe environmental constraints, internal divisions of region, ethnicity, and class, and authoritarian rule.<sup>46</sup> China's continued dramatic rise is far from assured. In the second decade of the new millennium, China has emerged as a global actor in economic and geopolitical terms and especially a major regional force in the Asia-Pacific, a nation which may be poised to challenge the US-dominated geopolitical status quo in the region and to attempt to build an Asia-centric regional order with China once again at the center. In contrast to realist international relations analysts such as John Mearsheimer, who project the emergence of a hegemonic China in East Asia based on assumptions about China's economic growth, a more likely prospect is a regional order in which the pace of development overall, and China's development in particular, slows, the United States remains a major regional player, and no single nation reigns supreme.<sup>47</sup>

Our discussion has centered on the logic and limits of Asian regionalism in three epochs. The present conjuncture, however, suggests one other important theme that differentiates the new millennium in the Asia-Pacific not only from the Pax Sinica of the eighteenth century and the attempt to build a Pax Nipponica of the first half of the twentieth century, but also the US effort to create a Pax Americana in the wake of the Asia-Pacific War. In both of the earlier epochs, East Asia was embedded in the global economy, yet the geopolitical reach of its dominant powers remained centered in East Asia. In the new millennium, both China and Japan are exploring possibilities of promoting the global reach of their economies and geopolitical footprints, as exemplified by China's deep engagement in Africa, the extension of Chinese and Japanese naval power to the Middle East and the African coast, the global search by both nations for critical energy resources, their heavy stakes in the US and European economies, and their direct clash over territorial and leadership issues. Less noted, but of potentially profound significance, is the fact that both nations embarked on ambitious programs of renewable

46 On the environmental obstacles to China's continued rise, see Paul Harris, ed., *Confronting Environmental Change in East and Southeast Asia: Eco-politics, Foreign Policy, and Sustainable Development* (Tokyo: United Nations University Press, 2005); Robert Marks, *China: Its Environment and History* (Lanham, MD: Rowman & Littlefield, 2011).

47 John Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001), p. 402. This is Mearsheimer's assumption about a China which succeeds in extending its developmental drive to become a wealthy nation. See Mark Beeson's astute discussion of hegemony in postwar East Asia, "Hegemonic transition in East Asia? The dynamics of Chinese and American power," *Review of International Studies* 35 (2009), 95–112.

energy (China) and smart cities (Japan) that address the global crisis which will shape future developmental possibilities. Both China and Japan are each, in their own ways, eyeing wider global geopolitical roles at a time when the G2 relationship between the United States and China has become the world's most important bilateral bond but is also among the most contentious. Stated differently, if China and the East Asia region continue their expansive trajectories, the United States, with the world's most powerful military, will find it difficult to maintain primacy in the region, yet China is also likely to experience growing tensions with its Asian neighbors.

### Further reading

- Arrighi, Giovanni. *Adam Smith in Beijing: Lineages of the Twenty-first Century*. London: Verso, 2007.
- Arrighi, Giovanni, Takeshi Hamashita, and Mark Selden, eds. *The Resurgence of East Asia: 500, 150 and 50 Year Perspectives*. London: Routledge, 2003.
- Bagchi, Amiya Kumar. *Perilous Passage: Mankind through the Global Ascendancy of Capital, c. 1492–2003*. Lanham, MD: Rowman & Littlefield, 2005.
- Beeson, Mark. *Regionalism and Globalization in East Asia: Politics, Security and Economic Development*. Basingstoke: Palgrave Macmillan, 2007.
- Blussé, Leonard. *Visible Cities: Canton, Nagasaki, and Batavia and the Coming of the Americans*. Cambridge, MA: Harvard University Press, 2008.
- Cooke, Nola, and Li Tana, eds. *Water Frontier: Commerce and the Chinese in the Lower Mekong Region, 1750–1880*. Lanham, MD: Rowman & Littlefield, 2004.
- Cumings, Bruce. *Dominion from Sea to Sea: Pacific Ascendancy and American Power*. New Haven, CT: Yale University Press, 2009.
- Duara, Prasenjit. *The Global and Regional in China's Nation-Formation*. London: Routledge, 2008.
- Duara, Prasenjit, ed. *Decolonization: Perspectives from Now and Then*. London: Routledge, 2004.
- Faure, David. *China and Capitalism: A History of Business Enterprise in Modern China*. Hong Kong University Press, 2006.
- Frank, Andre Gunder. *ReORIENT: Global Economy in the Asian Age*. Berkeley, CA: University of California Press, 1998.
- Gipouloux, François. *The Asian Mediterranean: Port Cities and Trading Networks in China, Japan and Southeast Asia, 13th–21st Century*. Northampton, MA: Edward Elgar, 2011.
- Gordon, Andrew. *A Modern History of Japan: From Tokugawa Times to the Present*. Oxford University Press, 2014.
- Gunn, Geoffrey C. *First Globalization: The Eurasian Exchange, 1500–1800*. Lanham, MD: Rowman & Littlefield, 2003.
- Hamashita, Takeshi. *China, East Asia and the Global Economy: Regional and Historical Perspectives*, ed. Linda Grove and Mark Selden. London: Routledge, 2008.
- Hamilton, Gary. *Commerce and Capitalism in Chinese Societies*. London: Routledge, 2006.

- Hayami, Akira, Osamu Saitō, and Ronald Toby, eds. *The Economic History of Japan, 1600–1990*, 3 vols. Oxford University Press, 2004.
- Katzenstein, Peter J. *A World of Regions: Asia and Europe in the American Imperium*. Ithaca, NY: Cornell University Press, 2005.
- Latham, A. J. H., and Heita Kawakatsu, eds. *Asia Pacific Dynamism, 1550–2000*. London: Routledge, 2000.
- Marks, Robert. *China: Its Environment and History*. Lanham, MD: Rowman & Littlefield, 2011.
- The Origins of the Modern World: A Global and Ecological Narrative from the Fifteenth to the Twenty-first Century*, 2nd edn. Lanham, MD: Rowman & Littlefield, 2006.
- Matthews, John. *Greening of Capitalism: How Asia is Driving the Next Great Transformation*. Stanford University Press, 2014.
- Myers, Ramon H., and Mark R. Peattie, eds. *The Japanese Colonial Empire, 1895–1945*. Princeton University Press, 1984.
- Perry, Elizabeth, and Mark Selden, eds. *Chinese Society: Change, Conflict and Resistance*, 3rd edn. London: Routledge, 2010.
- Pomeranz, Kenneth. *The Great Divergence: China, Europe, and the Making of the Modern World Economy*. Princeton University Press, 2000.
- Pomeranz, Kenneth, and Stephen Topik. *The World That Trade Created: Society, Culture, and the World Economy, 1400 to the Present*, 3rd edn. Armonk, NY: M. E. Sharpe, 2013.
- Reid, Anthony. *Southeast Asia in the Age of Commerce, 1450–1680*, 2 vols. New Haven, CT: Yale University Press, 1988 and 1993.
- Reid, Anthony, ed. *The Last Stand of Asian Autonomies: Responses to Modernity in the Diverse States of Southeast Asia and Korea, 1750–1900*. New York: St. Martin's Press, 1997.
- Rosenthal, Jean-Laurent, and R. Bin Wong. *Before and Beyond Divergence: The Politics of Economic Change in China and Europe*. Cambridge, MA: Harvard University Press, 2011.
- Saaler, Sven, and Christopher W. A. Szpilman, eds. *Pan-Asianism: A Documentary History*, 2 vols. Lanham, MD: Rowman & Littlefield, 2011.
- Sugihara, Kaoru, ed. *Japan, China, and the Growth of the Asian International Economy, 1850–1949*. Oxford University Press, 2005.
- Wade, Geoff. *Asian Expansions: The Historical Experiences of Polity Expansion in Asia*. London: Routledge, 2014.
- Wang, Dong. *The United States and China: A History from the Eighteenth Century to the Present*. Lanham, MD: Rowman & Littlefield, 2013.
- Wong, R. Bin. *China Transformed: Historical Change and the Limits of European Experience*. Ithaca, NY: Cornell University Press, 1997.

## Latin America in world history

JULIE A. CHARLIP

The very creation of Latin America, a product of the Iberian conquest of the Americas, is testament to the region as part of the world. Both as colonies and as independent nations, the region has been engaged in constant negotiation between foreign interests and domestic concerns. The international/domestic matrix is further complicated by tensions in Latin America between democracy and development, equity and efficiency. On Latin America's contested terrain, nation states – characterized by conflicts of class, race, and ethnicity – have struggled for identity and sovereignty in a world dominated by foreign powers. But the region has not just been the object of foreign desire. Latin Americans have also been important actors on the world stage, particularly as they have experimented with forms of social change.

### The death of the colonies

Within just a few generations after the conquests, colonists in the so-called New World came to resent more recent arrivals from the Iberian peninsula. This resentment initially was about competition between newcomers and veterans, but over time it came to be characterized by nativism on the part of Latin Americans, or *Americanos*, as they called themselves. They exalted the beauty of their landscape, the grandeur of the original indigenous empires, the creations of the colonists. By the eighteenth century, *Americanos* felt little link with their Spanish and Portuguese overlords, and a greater sense that Iberians were far more dependent on American wealth than *Americanos* were on Iberian largesse.

These tensions were fueled by both material and ideological issues. Economically, the once powerful Iberian empires were now clearly inferior to the growing strength of Great Britain and France. Spain never recovered militarily from British defeat of the Armada in 1588, and Spain's Habsburg

monarchs squandered colonial silver on fruitless European conflicts. In 1700, the death of Charles II without an heir provoked the War of the Spanish Succession, ending in 1713 with Philip of Anjou of the Bourbon dynasty ascending to the throne of Spain. Philip quickly discovered that the Habsburgs had squandered the fortunes of the colonies, leaving Spain nearly bankrupt – in 1739 the crown suspended payments to its creditors because it could not pay. Philip succeeded in strengthening crown control over the Spanish provinces; his heir, Ferdinand VI, used this new state power to increase financial control over the colonies, including an end to the sale of colonial offices. But it was the third Bourbon king, Charles III, whose reforms would infuriate the *Americanos*. The most controversial changes were the creation of the intendency system, which imposed a layer of Spanish-born crown officials with expansive administrative, judicial, and financial power displacing *Americano* local officials, and the expulsion of the Jesuit order from the colonies. Measures similar to the Bourbon reforms were carried out in Brazil.

The *Americanos* further resented being tied in mercantilist relationships with Spain and Portugal in an era when the potential of free trade and Great Britain's first industrial revolution beckoned. The colonies frequently served as the battleground on which European struggles were fought. During the Seven Years' War, Cuba was occupied by the British, and in 1762, the port of Havana was opened to free trade. The result was dazzling – in ten months, 1,000 ships docked in Havana harbor, compared to a mere 1,500 ships during the previous ten years.

The eighteenth century was also a time of intellectual ferment. The divine right of kings was questioned, and the rights of men were debated. There was no printing press in Brazil, and Spanish officials tried to censor colonial publications. Nonetheless, Spanish colonists published the works of Montesquieu, Rousseau, and Locke. Colonial elites took grand tours of Europe, where they encountered the new and freeing ideas about reason, the common good, and the ability of people to rule themselves and control their property.

The heady new ideas led to two impressive experiments – the war of independence launched by the British colonies in North America in 1776, and the French Revolution in 1789. Spanish colonists read Thomas Paine and watched with admiration as North Americans freed themselves from the British mercantilist yoke. The French Revolution, though initially exciting, soon frightened Latin American elites, as the guillotine fell and the revolutionary explosion rippled to the French colony of Saint-Domingue, where the



Map 20.1 Latin America in 1800

Haitian revolution was launched. Stories of slaves overthrowing their masters were carried by elites who fled, many of them to Spanish America, particularly Cuba. Practicality won over ideals. Elites had no desire to launch revolts that might open the door to their own dispossession by the *castas*, the dark majority population of the indigenous, Africans, their descendants, and the many and growing new groups of mixed race (Map 20.1).<sup>1</sup>

<sup>1</sup> See also Jaime Rodríguez, "Atlantic revolutions: a reinterpretation," in this volume Part 2, Chapter 12.



Foreign events, however, would push the colonists to the independence many had been considering for decades. The French Revolution ended in the rule of Napoleon in 1799, and his attempts to conquer Europe began in 1803. Spain was pulled into the conflict: its navy defeated by the British at Trafalgar in 1805, and its economy destroyed by French blockade in 1806. In 1807, Spain acceded to Napoleon's request to march through Spanish territory to conquer Portugal. Portugal's rulers, the Braganzas, boarded British ships along with a royal court of thousands and sailed for Brazil. French forces took Lisbon, then marched back to conquer Spain. In 1808, Charles IV abdicated in favor of his son, Ferdinand VII, and both were exiled to French prison; the new king of Spain would be Napoleon's brother, Joseph.

The French conquest gave the *Americanos* in Spanish America the opportunity to act on their long-simmering resentments. *Juntas* formed to rule in the name of the deposed king, but by 1810, independence movements rose up in Dolores, Caracas, and Buenos Aires. The rebels fought in divided lands: Spaniards versus *Americanos*, region against region, conservatives against liberals. By 1814, with the defeat of Napoleon and the return of Ferdinand VII to the throne, the independence movements had all ended in defeat. Ferdinand's retribution against the rebels and his expectations of ruling as an absolute monarch, despite the adoption of the 1812 constitution in his absence, led to the second, successful round of independence wars. By the time of Peru's Battle of Ayacucho in 1824, all of Spanish America was independent, with the exception of Cuba and Puerto Rico, which remained Spanish colonies until 1898 (Map 20.2).

## The birth of new nations

Independence brought more questions than answers for the former colonists. How would they go from four vicerealties – New Spain, Peru, New Granada, Rio de la Plata – to new nations? Everything was in question: the boundaries and names of new nations; the inclusiveness and rights of citizenship; the forms of government; the cultural norms and identity of new nations. The quest for independence had united disparate forces in a singular goal – independence from the Spanish monarchy. What would come next was open to debate, more frequently settled by arms than words.

Initial unity quickly resulted in fragmentation. In 1824, the four vicerealties became six countries: Mexico, the United Provinces of Central America (which broke away from Mexico in 1823), Great Colombia, Peru, Chile, and the United Provinces of Rio de la Plata. The next twenty years were



Map 20.2 Latin America in 1830

characterized by national dissolution. In 1825–1826, Bolivia split from Peru; in 1828, Uruguay splintered from Rio de la Plata; in 1830–1831, Ecuador and Venezuela left Colombia; in 1836, Texas became independent from Mexico, and in 1838–1839, Central America divided into Guatemala, El Salvador,

Honduras, Nicaragua, and Costa Rica. In 1844, the Dominican Republic split from Haiti.

The splintering of the new republics was indicative of the intense regionalism throughout Latin America. The wars of independence had in many ways been civil wars as well. When the first movement for independence in the La Plata region erupted in 1810, it was centered in Buenos Aires, and was strictly a local matter for the unconcerned residents of the Banda Oriental (Uruguay), Upper Peru (Bolivia), and Paraguay. While elites in Buenos Aires longed for free trade, the provinces around the port city offered the unfettered open pampas and freedom of the gaucho. The interior provinces of Salta, Tucumán, Jujuy, and Catamarca were oriented not to the port but to mines in Upper Peru. These differences were not resolved by independence; a variety of polities competed in the region after 1819, narrowing to two – the Argentine Confederation and the Free State of Buenos Aires in 1853 – and finally joining in the republic of Argentina in 1862. It was another decade before Argentina, a name that originally referred only to residents of Buenos Aires and the La Plata area, was accepted throughout the nation.

The leaders of the newly independent countries were eager to create new identities. They were culturally Spanish, but having thrown off the Spanish yoke, they no longer wanted to affiliate with Iberian tradition. But what alternatives were there, given that the ancient heritage of their lands was indigenous? As independence leader Simón Bolívar explained, “We are . . . neither Indian nor European but a species midway between the legitimate proprietors of this country and the Spanish usurpers.” The “legitimate proprietors,” the elites were quick to note, were the original indigenous conquered by the Spanish, and certainly not the contemporary indigenous, who the Americanos saw as inferior, degraded into idiocy by centuries of Spanish rule. But the ancient empires would be lauded as the American version of ancient Greece and Rome. They chose ancient names – New Spain became Mexico, named after the original Mexica. Provinces were renamed – Tamaulipas in place of Nuevo Santander, Xalisco for Nueva Galicia. Throughout the new nations, imaginative representations of ancient indigenous people graced flags, coins, and state seals.

The actual treatment of the indigenous, the Afro-Latin American, and the mixed race mestizos and mulattoes, did not mirror the regard for their ancient ancestors. Despite Lima’s theater curtain adorned with indigenous images, the stage was reserved for European culture, particularly from northern Europe. The elites admired the culture of France, the economic prosperity of Great Britain, and the industriousness of northern European

cultures, compared to what they saw as a backward Spain that had hindered the development of its colonies. Furthermore, though slavery was outlawed by all the new nations except Brazil, the castas were still to serve as low-wage laborers. Initially voting rights were widely given even to indigenous men, but as the elites rewrote their constitutions with stunning regularity, they soon restricted the vote to propertied white men. Promises of freedom had been made to the lower classes to recruit them to the independence cause, but the elites had not fought for independence to share their gains with the dark majority.

The most pressing question was how to govern the former colonies. It was by no means a given that the countries would become republics, and indeed, Mexico and Brazil became monarchies. For Brazil, the transition from colony to independent nation was a relatively tranquil affair. The Brazilians had enjoyed the presence of the Braganza court in Rio de Janeiro beginning in 1808, and in 1815 Brazil was elevated to the status of kingdom as part of the United Kingdom of Portugal, Brazil, and the Algarves. After Napoleon's defeat, King João stayed on in Brazil until 1821, when the representative Cortes in Portugal demanded that he return. The 23-year-old Prince Pedro became regent of Brazil, but he also was soon confronted by the Cortes, which tried to return Brazil to its colonial status and demanded that Pedro, like his father, return to the peninsula. On the advice of his Brazilian counselors, Pedro decided to stay in Brazil, and in 1822, he declared Brazil's independence. He, of course, continued as monarch, crowned Constitutional Emperor and Perpetual Defender of Brazil.

Mexico's initial flirtation with monarchy ended quickly. Emperor Agustín I – the former Spanish loyalist turned independence leader Agustín de Iturbide – ruled from September 1821 to March 1823. But his overthrow had less to do with the question of monarchy than with the problems faced by all the new nations. Iturbide was the leader of a deeply divided nation, and he could not satisfy all the demands with the limited resources available. Much of Mexico's infrastructure was damaged by the independence wars; many of the mines, the prime source of income, had been flooded. Crops had rotted in the fields, and businesses were abandoned.

Iturbide's solutions were the same ones that many rulers of the new Latin American countries would try. To retain the support of wealthy elites, he cut taxes. But without the taxes, his government lacked the funds to pay the army, which was crucial to the support of a new, weak government. To pay the military, he turned to the issuance of paper money, which in turn caused inflation. Desperate for funding, Iturbide took on foreign loans, which

Mexico could not repay, and forced loans from the elites and the Catholic Church, angering his main support base. Discontent led to political turmoil, and the frustrated monarch responded by closing congress, a dictatorial move that alienated his political supporters. The final challenge came from a combination of foreign and national interests. Although Mexico essentially gained its independence in 1821, when Iturbide switched sides, the Spanish still held the fort at Veracruz. The Mexican forces challenging them were headed by Antonio López de Santa Anna. Santa Anna demanded adequate funds to fight the Spanish. Iturbide refused and fired Santa Anna, who responded by launching a coup that unseated the Mexican monarch.

The foreign loans that Iturbide contracted came primarily from the British, who hoped to dominate the economies of the new nations. The weak new nations needed loans, and the British were ready to supply them: fourteen loans were floated to the new nations between 1822 and 1824. The loans resulted in defaults, not in small part because of the chronic instability in the new countries.

The economic instability was in part due to the physical destruction caused by the wars of independence and the loss of Spanish capital and investments. In addition, Spain was reluctant to admit its losses and attempted to regain territory, while other European countries launched invasions to collect indemnities, and the United States eyed Latin America as the key to US expansion. Mexico, for example, was invaded by the Spanish in 1829, the French in 1838, and the United States in 1846. While still recovering from the independence wars, the new nations were at war again, further diminishing resources and stability.

The new nations were further weakened by domestic divisions, which led to chronic warfare. One problem was regional, as the feeble central governments tried to exert control over large territories. The concept of the nation state was new and abstract. Local populations identified with their villages and nearby towns, the *patria chica*, or small country. Divided by mountains and forests, these populations were physically separated. The reach of the new governments was limited by inadequate communications technology, geographic barriers, and local orientation, exemplified by the splintering of the first new nations and by further divisions, such as the Mexican secession attempts by Texas and Yucatán.

The regional disputes reflect one of the key political divisions: centralism versus federalism. Federalists believed in regional autonomy and advocated a weak central government; they considered centralism akin to the domination they had endured under the Spanish crown. Centralists, on the other hand,

argued that only strong central control could shape the regions into coherent nations. Centralists tended to form the new Conservative parties, which advocated fostering Latin American traditions: a strong ruler – either a president or constitutional monarch, large haciendas controlled by patriarchs, a docile and servile majority, all backed by the authority of the Catholic Church. The federalists joined the new Liberal parties, which urged republican institutions, formal equality before the law, an expanding national government, and secularization of society. While these political debates occurred among the small population of elite, educated, and propertied white men, the debates frequently led to wars, which the masses were coerced into fighting.

The Catholic Church would end up as the central institution debated over by the Liberals and Conservatives. The Church was the only Spanish institution to survive independence. The majority of Latin Americans did not understand the concept of the nation state and certainly did not see themselves as Mexicans or Bolivians. But they understood that they were Catholics, an identity that transcended nation. The most important events in people's lives – marriage, birth, death – were marked by religious rituals, and people had more contact with priests than with royal or national officials. New weak governments would covet the power – and the wealth – of the Church. Conservatives, eager to maintain the status quo, supported the traditional Church. Liberals were eager to expand the state by taking over the Church's wealth, responsibility for education, and record-keeping of marriages, births, and deaths.

In the midst of these decades of chaos, control could only be wielded by the *caudillo*, a strong leader who commanded respect because of military prowess and charisma. His power was personal, and though he might be elected, it was not the formal mechanisms of government that gave him authority. The caudillos' initial power bases were local or regional, but with loyal backing and a central power vacuum, they were able to take national control. Santa Anna in Mexico would rule repeatedly from 1824 to 1855. Among the caudillos of the early nineteenth century were Juan Manuel de Rosas of Argentina, 1829–1852, and Rafael Carrera in Guatemala, 1839–1865, both of whom would advocate measures that supported traditional groups: Argentina's gauchos and Guatemala's indigenous majority.

By the second half of the nineteenth century, it was clear to Latin American elites that they and their countries could not prosper in the midst of such chaos. Chronic warfare disrupted economic activity, and the revolving door of government discouraged foreign investors, who feared new

governments could not protect their investments. In no country were these problems more evident than in Mexico. Decades of Liberal–Conservative conflict culminated in the War of the Reform (1858–1861), leaving the country weak, indebted, and so vulnerable that it was again invaded by the French in 1861, who established the Austrian archduke Maximilian as emperor of Mexico (1863–1867).

By the 1870s to 1880s, most elites throughout Latin America had come to the conclusion that the seemingly endless and bloody civil wars had done more harm than good. While Conservatives did not necessarily support particular Liberal leaders, they acquiesced to the Liberal agenda of a secular state and a federal, constitutional government as the guarantor of the stability needed to encourage foreign investment. If there was one thing that the elites could agree on, it was the desire to achieve personal and national wealth. Stability would foster economic prosperity, which would be realized by focusing on free trade and the exercise of the region's comparative advantage, selling primary products to Europe and the United States in exchange for the manufactured goods emanating from the factories of the nineteenth-century industrial revolution.

With new nations and free trade in place of colonies and mercantilism, wealth would be attained directly by Latin America's elites. But the new countries were as intertwined with this international economic system as they had been as colonies, and the control of their economic fates was just as limited.

### The rise of export economies

Progress was the watchword for the late nineteenth century, and it was represented in Latin America by the adoption of European ideologies: the positivism of Auguste Comte (1798–1857), the comparative advantage of David Ricardo (1772–1823), and the Social Darwinism of Herbert Spencer (1820–1903). These ideas, adapted to the Latin American reality, would shape Latin America from the 1880s to 1914.

Auguste Comte's positivism was an extreme form of empiricism that rejected philosophical arguments based on abstract ideas. He argued that all knowledge should be based on observable phenomena, using scientific methodology. By doing so, human society could progress based on adoption of the latest technologies. Though not the first philosopher to champion empiricism, he made a novel contribution by creating a theory of history in which human society developed through stages. First was the theological, in

which people explained the phenomena they did not understand by relying on supernatural explanations. This stage was followed by the metaphysical, in which people moved beyond supernatural explanations but still considered abstract theoretical ideas about phenomena. Finally, in the positive state, people understood scientific laws and chose to achieve social progress by using technology.

The positivist view helped fuel elite obsession with the latest technology of the time, especially railroads and telegraph. The technologies facilitated the strengthening of both the state and the economy. The telegraph enabled the central government to be in touch with officials throughout the country, and the railroad facilitated moving government representatives around the country. Local officials could quickly alert central authorities to local uprisings, and troops could be dispatched via railroads. The “theoretical republics,” as Cuban independence leader José Martí called them, became quite real in the late nineteenth century.

Economically, the railroad opened up regions of the country to become part of national and international markets. Crops that would never make it to the coast by mule could be sent via railroad. The railroad raised the value of land throughout Latin America, and linked areas within many countries in new national markets – albeit limited ones, given the poverty of the majority of the population.

Latin American elites’ approach to economic development followed the ideas of David Ricardo, which argued that each country should produce the goods for which it was best suited. His classic example was that perhaps both Spain and England could produce wine and textiles, but Spain was a more efficient producer of wine than England, and England a more efficient producer of textiles than Spain. If each country followed its comparative advantage and then traded those products, both would prosper. Latin America’s comparative advantage, then, was in the production of primary products: grain, coffee, sugar, cotton, cacao, bananas, livestock, copper, silver, tin, lead, zinc, nitrates, palm oils, nuts, woods, and rubber.

To expand export production, the elites needed two elements: land and labor. By controlling the national government, the elites could use the power of the state to facilitate the acquisition of both inputs. Laws were passed requiring that corporate landholdings – that of the Catholic Church and indigenous village lands, or *ejidos* – be surveyed, titled, and auctioned to the highest bidder. Some of these measures had been attempted in earlier decades – such laws provoked Mexico’s War of the Reform – but it was not until stable, strong governments were in power that such laws could be enforced.



As *campesinos* lost their lands, they had no choice but to toil on the haciendas and plantations of the elites. The rural people's fate was sealed by a lack of any land, or adequate land, for subsistence, and by new vagrancy laws that required them to acquire employment. Their need for jobs was further fostered by the assigning of taxes that could only be paid in money, rather than goods. Employers tried to hold workers by instituting debt peonage, extending loans to the workers and forcing them to stay on the hacienda until the debt was paid. Frequently the workers were paid in scrip, only usable at the hacienda store, where overpriced goods were sold to the workers, with the cost deducted from their pay. When the workers died, those debts could be passed to their children. However, the efficacy of debt peonage has frequently been overstated. Debt peonage only worked where it was difficult for workers to leave and police or army forces were adequate to catch them. In Mexico's Yucatán, workers on the henequen plantations were practically slaves. In contrast, in Carazo, Nicaragua, coffee workers would take loans from several coffee haciendas, then leave; the weak Nicaraguan police forces were hard pressed to find and return the workers.

Work conditions for Latin America's majority were miserable, but Herbert Spencer's theory of Social Darwinism was used by the elites to justify such treatment. In a corruption of Charles Darwin's evolutionary theory, Spencer argued for the "survival of the fittest" – and those at the bottom of society clearly had not evolved to the higher levels attained by the elites. Such views contributed to new ideas of scientific racism and eugenics, in which it was believed that non-white populations were inherently inferior.

Disdain for the indigenous, black, and mixed-race populations had been expressed as early as the 1840s, particularly in the writing of Argentina's Domingo Faustino Sarmiento. In *Facundo, or Civilization and Barbarism*, Sarmiento wrote: "The American aborigines live in idleness, and show themselves incapable, even under compulsion, of hard and protracted labor. This suggested the idea of introducing negroes into America, which has produced such fatal results. But the Spanish race has not shown itself more energetic than the aborigines, when it has been left to its own instincts in the wilds of America."<sup>2</sup> He went on to condemn the barbarism of the gaucho and promote the civilization of the cities and the industriousness of northern Europeans. His views were echoed throughout Latin America.

2 Domingo Faustino Sarmiento, *Life in the Argentine Republic in the Days of Tyrants: Or Civilization and Barbarism*, trans. Mrs Horace Mann (New York: Macmillan, 1868), p. 11.

As part of modernization, the elites expanded education in the hope of encouraging the lower classes to assimilate to elite ideas. However, even expanded education did not reach the majority of people, especially since children were needed as labor to help support families.

Latin American governments lacked the substantial sums needed to build railroads, telegraph lines, and port facilities, and so they turned to foreign investors, particularly British, and in Mexico and Central America, US corporations began the investments that would come to dominate the area by the early twentieth century. Foreigners frequently came to own the infrastructure, or at least collected on loans used to build it. These foreign investors also bought land and mines, and owned other productive sectors. While coffee farms were mostly owned by Latin Americans, the banana industry was a US enclave. In Guatemala, the United Fruit Company would come to own the railroad, port facilities, and 40 percent of Guatemala's land.

Although Latin America's economies were centered on exports of primary products, elites also pursued modest industrialization in the late nineteenth century. Initially, the focus was on processing natural products: flour mills, sugar refineries, meat-packaging plants, tanning factories, lumber mills, wineries, and breweries. Eventually, industries produced such products as textiles and processed food for the domestic market. *Campesinos* who lost their land headed to the cities to work, but their labor did not suffice in countries such as Argentina and Brazil, where industry expanded more rapidly. Both countries encouraged foreign immigration, in part with hopes that industrious northern Europeans would "whiten" their populations. Much to their chagrin, most immigrants came from Italy, Spain, and Eastern Europe, and they brought with them ideas about anarchism, anarcho-syndicalism, socialism, and communism.

The rapid economic changes of the late nineteenth century were possible in no small part because of the stability provided by the newly consolidated liberal state. Its motto was "Order and Progress," a slogan that even adorned the flag of Brazil. These leaders could be viewed as modernizing caudillos, who were generally elected, but frequently in fraudulent elections. The consummate modernizing caudillo was Porfirio Díaz, who was popularly elected in Mexico in 1876. He stepped down in 1880 at the end of his first term, but ran for re-election in 1884 and "won" all subsequent elections until he was overthrown in 1911 by the Mexican Revolution. Similar modernizing dictators ruled throughout Latin America: Justo Rufino Barrios (1873–1885) and Manuel Estrada Cabrera (1898–1920) in Guatemala; José Santos Zelaya (1893–1909) in

Nicaragua; Antonio Guzmán Blanco in Venezuela (1870–1888). The political system was still dominated by land-owning elites, and the vote still restricted to literate, propertied men. The majority were excluded from all decision-making.

These governments relied on the revenues produced by export booms, but booms tended to be followed by busts. The success of exports depended on foreign markets, and economic downturns abroad could have devastating effects at home. Furthermore, foreign tastes were changeable. Peru was one of the first Latin American countries to experience the export boom, with its export of guano, bird dung that accumulated on adjacent islands. The guano boom was fueled by the demand for fertilizer for expanding US and European agriculture. From 1840 to 1880, more than 20 million tons of guano was exported, earning US\$2 billion in profits. But by the 1880s, guano lost its appeal, replaced by nitrates from the Atacama Desert – a territory that Peru had lost to Chile in the War of the Pacific (1879–1884).

Dazzled by export profits, Latin American elites focused their economies on one or two products, neglected domestic agriculture, and profited at the expense of the majority. The chaos of the early nineteenth century may have left the masses with more freedom – certainly government control was more limited. However, state stability and economic prosperity translated to greater control over an immiserated lower class.

### Neo-colonialism in the nineteenth century

Even before the wars of independence had ended, the British eyed the region's wealth while the United States coveted its territory. The first intervention was merely rhetorical: the United States issued the Monroe Doctrine in 1823. In the twentieth century the doctrine would come to be seen as the emblem of US domination. At the time, however, the statement was seen as benign. The policy was prompted by the British request that the United States join in a statement warning other European powers that the western hemisphere was no longer open for colonization. But in 1823 – barely a decade since the British burned Washington, DC, during the war of 1812 – the Monroe administration had no interest in joining the British in a diplomatic venture. Instead, Monroe issued his own statement, which asserted that an attack on any republic in the Americas would be viewed as an attack on the United States. Latin American independence leaders were delighted to have US support, but they soon found that it was an empty promise, as the United States was far from being a world power in the 1820s.

Great Britain was much more important, and the British could see Latin America's potential. The view was expressed by Britain's foreign minister, George Canning, in 1824: "Spanish America is free, and if we do not mismanage our affairs sadly, she is English." Canning advocated a neo-colonialism that would be carried out through economic means, without the problems of a formal political colony.

Britain's first investments, loans to the fledgling governments, ended in default. Initially, British trade fared little better. From 1820 to 1850, many British goods piled up unsold, the victims of misunderstood markets, high tariffs, and Latin American instability. By the 1860s to 1880s, however, Britain found larger markets, particularly for textiles, which made up 70 percent of its exports. Britain exported cloth and clothing, including the frock coats that Sarmiento so admired: "Elegance of style, articles of luxury, dress-coats and frock-coats, with other European garments, occupy their appropriate place in these towns."<sup>3</sup> But the British, eager to meet consumer demand, also supplied ponchos, famously worn by Sarmiento's despised gauchos.

Great Britain also exported machinery, which was used to create Latin America's nascent industry of the late nineteenth century. Britain also negotiated preferential trade agreements, and invested directly in railways and public utilities and provided banking and insurance services.

Despite its primary focus on trade, Britain was not above territorial interests. The British dominated the Atlantic Coast of Nicaragua and seized the Malvinas (Falkland) Islands from Argentina in 1833.

The United States eyed Latin American territory from an early date. In 1809, President Thomas Jefferson tried to purchase Cuba from Spain, an effort that would be made again in the 1850s. The efforts to add to US territory in the mid-nineteenth century were described by journalist John L. O'Sullivan as the country's "manifest destiny." The destiny was linked to the institution of slavery and desire to add slave states to the nation. In 1845, President John Tyler announced the annexation of Texas, earning the ire of Mexico, which had never accepted the state's independence. In 1846, President James Polk ordered Zachary Taylor's troops to cross the long-recognized border of the Nueces River, claiming the border was actually the Rio Grande, farther south. Mexico attacked the troops, which were on Mexican soil. Claiming the area was US territory, Polk declared war. Despite the opposition of such figures as Congressman Abraham Lincoln, the war was popular with most US citizens. The fragile Mexican state was in no position to win a war against US troops,

<sup>3</sup> Ibid. p. 13.

and in 1848, signed the Treaty of Guadalupe Hidalgo, ceding half its territory to the United States. The United States referred to the conflict as the Mexican–American War; Mexicans more accurately termed it the War of North American Invasion.

The arrogance of the United States towards its southern neighbors was again demonstrated in 1850, when the United States and England signed the Clayton-Bulwer Treaty. In the agreement, the two powers agreed that neither would build a canal across Nicaragua without the consent of the other. No representative from Nicaragua was a party to the discussions and agreement.

By the turn of the century, two events demonstrated that the United States was clearly the dominant power in Central America and the Caribbean. First was the so-called Spanish–American War in 1898, when the United States sent troops to prevent Cuba from winning its independence on its own terms. Cuba was on the verge of winning its Independence War, which began in 1895, when the United States intervened. US troops occupied Cuba until 1903, when the new nation finally agreed to add the hated Platt Amendment to the Cuban constitution, giving the United States the right to intervene whenever its interests were threatened.

It was also in 1903 that the United States, whose canal proposal was rejected by the Colombian congress, supported an independence effort by the northern province of Panama. US warships prevented Colombia from landing troops in the region. Two weeks later, the new congress of Panama gave the United States rights to build a canal.

As the interest in a canal demonstrates, US concerns in the region were primarily geopolitical. With the canal, the United States could quickly defend the nation and control Central America and the Caribbean. But, like Great Britain, the United States also wanted access to Latin America's raw materials in exchange for the goods manufactured in US factories.

## The first twentieth-century revolution

The liberal export economy further enmeshed Latin America in international trade and politics. Domestically, the export economy gave rise to new sectors of society – an urban, industrial workforce in the larger countries, such as Mexico and Argentina, and a middle class of teachers, clerks, bureaucrats, businessmen, authors, intellectuals, and professionals. Both groups had demands: workers wanted better wages and working conditions, as well as a voice in the government; the middle class wanted good public schools and

services, and a voice in the government. The elites were determined to maximize their profits by keeping wages low, and to keep both groups out of the systems of power. Those decisions would spark the Mexican Revolution.

In 1900, critiques of the regime of Porfirio Díaz began to appear in *Regeneración*, a newspaper published by the anarchists Jesus, Enrique, and Ricardo Flores Magón. Strikes ended in government violence and repression in 1906 at Cananea Consolidated Copper Company, owned by Col. William Greene, and in 1907 at the Rio Blanco textile mill. And in 1908, when Díaz claimed in an interview that he would not seek re-election in 1910, political rivals began to mobilize. Chief among them was Francisco I. Madero, whose wealthy family owned millions of acres of land in the border state of Coahuila, as well as iron and coal mines. Madero, like other northern elites, was not part of Díaz's inner circle and had been shut out of government power. In addition, the northerners chafed against the privileged position that Díaz gave foreign competitors.

Madero ran against Díaz, who to no one's surprise decided to run again and, as he always did, won the election by a landslide. Díaz jailed Madero, who escaped to the United States and issued a call for revolution. His call to action was heeded by the northern elites, represented by Coahuila Governor Venustiano Carranza; northern hacienda peons, led by Pancho Villa; and southern *campesinos* struggling for land, led by Emiliano Zapata. The uprising began on November 14, 1910, and the results came quickly: Díaz fled to exile on May 26, 1911.

The popular Madero handily won the ensuing election, but he was in a difficult position. Supporters to his right found him too radical; supporters to the left found him too moderate. Madero believed that he was leading a political revolution. Although his Plan of San Luis Potosí had a vague provision about restoring land to *campesinos*, when confronted by Zapata he made it clear that land reform was not his priority. In November 1911, Zapata issued his own call, the Plan of Ayala, with a rallying cry of "Land and Liberty."

The unfortunate Madero was overthrown in February 1913 by Victoriano Huerta, once Díaz's general, then Madero's before turning on him. Carranza, Villa, and Zapata all led forces against Huerta, finally defeating him in July 1914. But the revolution/s were about far more than the individual political power of Díaz, Madero, and Huerta. Carranza wanted to head a new order that would be dominated by northern elites. Villa continued to defend the interests of the peons, and Zapata of the landless *campesinos*. Although Villa

and Zapata championed the lower classes, they were unable to join forces – in no small part because their concerns and support networks were local, and they lacked a national vision.

Carranza benefited from the support of the United States, who feared the revolution would jeopardize their substantial Mexican interests. Carranza was seen as the lesser evil, one who would support moderate changes but still respect the economic order. Villa and Zapata were seen as dangerous radicals.

By 1917 much of the fighting had ended, and Carranza consolidated his position by calling a constitutional convention. To his dismay, the convention produced a constitution far more radical than he had planned. The Russian Revolution had barely begun when Mexico instituted the world's most radical charter. The constitution said the government had a responsibility to meet the needs of its citizens. Article 123 granted broad labor rights, including the right to unionize and strike, minimum salaries, and maximum hours. Article 27 called for land reform, with the land that had been alienated from villages during the Porfiriato to be returned.

Carranza became president in 1917, Zapata was assassinated in 1919, and Villa agreed to lay down his arms in 1920. When Álvaro Obregón, Carranza's chief general, became president in 1920, the violent phase of the revolution had largely ended. Obregón championed a new cultural focus under education minister José Vasconcelos, who sponsored rural schools and public art, launching the Mexican mural movement by hiring the great artists Diego Rivera, José Clemente Orozco, and David Alfaro Siqueiros. The artists made the lower-class Mexicans, who had risen up in the revolutions, the subject of their art.

The excitement of the Mexican Revolution attracted people from around the world. From the United States came photographers Tina Modotti and Edward Weston, and journalist Carleton Beals; from Chile the poet and educator Gabriela Mistral; from Peru the intellectuals Victor Raúl Haya de la Torre, who would found the APRA (American Popular Revolutionary Alliance), and José Carlos Mariátegui, who organized the Peruvian Socialist Party. Mexico gave refuge to Salvador de la Plaza, Carlos Aponte, and the Machado brothers, Gustavo and Eduardo, who fought against Venezuelan dictator Juan Vicente Gómez (1908–1935). In the mid-1920s, a house called the Casa Simón Bolívar, named after the independence leader who once stayed there, became home to Latin American revolutionary exiles: the Venezuelan exiles were joined by Peruvian Jacobo Hurwitz, and Cuban Communist leader Julio Antonio Mella and his wife, Oliva Zandivar. After

the Spanish Civil War, veterans from the Republican side fled to Mexico, escaping the fascist regime of Francisco Franco. Leon Trotsky, exiled from the Soviet Union, found refuge in Mexico, where he socialized with Diego Rivera and his wife, Frida Kahlo, as well as with French writer André Breton. It was in Mexico City that Joseph Stalin's agent found Trotsky and assassinated him.

The Mexican Revolution was the most extreme reaction to problems that were common through the region: the middle class wanted access to political power, *campesinos* wanted their land back, and the working class wanted decent wages and working conditions. In Argentina, the industrial working class had grown with the meat-packing plants and food processing industries. The government had encouraged immigration, and the primarily Italian, Spanish, and Eastern European immigrants organized unions along with anarchist and socialist movements. In 1910, the official celebration of the centennial of independence was accompanied by demonstrations. President Roque Saenz Peña targeted Argentine nationalism – by 1910 Buenos Aires was 30 percent foreign-born (compared to 13 percent of New York City's population) – and in 1912, the Saenz Peña law gave the vote to all native-born Argentine men, eliminating property and literacy requirements. The new voters helped break the grip of the old landed elites and open the political system to the new middle class by electing its candidate, Hipólito Yrigoyen, as president in 1916.

### The fall of export economies

The prosperity of the export economies was not evenly distributed. In terms of international trade, the countries exporting manufactured goods earned more than the countries exporting primary products. Domestically, the wealthy acquired more land and resources, and foreign investment increased, while poor *campesinos* lost their lands and many of them migrated to the burgeoning cities. New European-style buildings adorned the cities, but the slums grew as well. The elites were unconcerned about the poor majority, and they were equally unconcerned about the questionable stability of their model of development, which depended on access to foreign markets. Three events in the twentieth century would compromise that access and challenge the export model and liberal political system: the First World War, the Great Depression, and the Second World War. Buffeted by international affairs, Latin America would pay a price for its economic openness.



The First World War resulted in shortages of shipping and decline in European demand. Since most Latin American governments relied on import tariffs for income, the effect was devastating; in Chile, for example, government revenues dropped by two-thirds from 1911 to 1915. Similarly, foreign loans disappeared. Brazil received US\$19.1 million in loans in 1913; in 1914, the amount had dropped to US\$4.2 million, and the next year, Brazil received no public loans. The war provided opportunities for Venezuelan and Mexican oil, Peruvian copper, Bolivian tin, and Chilean nitrates, but the income did not offset the rise in import prices and the trade and budget deficits. The result was inflation, erosion of real wages, and political upheaval. Curtailment of European trade opened the door to the United States, which was little help to countries such as Argentina that produced the same products that the United States did, such as grain and beef. The loans that the United States offered tended to come with political strings attached, and the United States intervened repeatedly, especially in Central America, to guarantee payment via customs receiverships.

European recovery in the 1920s initially did little to help Latin America. There had been a drop in the European birth rate, lowering demand. European investors turned their attention to their own continent. Further, because Europe had been cut off from imports, the war fostered development of synthetic substitutes for cotton, rubber, forest dyes, timber, and nitrates. Latin American producers responded by increasing production, which led to a decline in prices. Even the Latin American products that had done well, such as oil, copper, and tin, now competed with those from the rest of the world, which led to market gluts and price drops.

Latin America began to recover as loans poured in from the United States from 1926 to 1928. So much money came into the region that the lending became known as the “dance of the millions.” Trade resumed, primarily with the United States, Great Britain, France, and Germany. But that recovery was cut short by the US stock market crash in 1929, and the subsequent worldwide depression.

Once again, Latin Americans saw their markets shrivel. From 1928 to 1932, the value of exports dropped by 50 percent and the volume of exports dropped by 65 percent. Cuba’s foreign trade in the 1930s was a mere 10 percent of what it had been in 1929, and Uruguay’s only 20 percent. But the interest on foreign loans did not go down, and most countries defaulted.

Displaced workers demanded that the governments respond to economic hardships. The liberal elites who ran Latin America’s governments were ill-equipped to deal with the popular uprisings that the depression sparked, and

the wealthy and middle classes were willing to turn the government over to dictators who could guarantee social peace. Dictators came to power throughout the region: Gerardo Machado in Cuba, Anastasio Somoza García in Nicaragua, Maximiliano Hernández Martínez in El Salvador, Rafael Trujillo in the Dominican Republic, Jorge Ubico in Guatemala, Augusto Leguía in Peru.

The economy began a slow recovery as Latin America began to develop new trade partners in the 1930s, particularly Germany, Italy, and Japan. By 1938, the three countries were buying 55 percent of Latin American exports and supplying 45 percent of its imports. This reorientation of trade would be badly disrupted by the outbreak of the Second World War. Countries that provided raw materials that could be used in the manufacture of war *matériel* – oil, copper, tin, nitrates – did well. Those that produced the non-essential crops – sugar, coffee, bananas – did not fare as well.

The worldwide crises prompted a re-examination of the role of government in moderating economic vulnerability. New Dealism, socialism, and fascism were all responses to the volatility of the unregulated free market. These ideas had their echoes in Latin America and gave rise to economic nationalism, a call for long-range planning and incentives. Latin Americans reconsidered their vulnerability as exporters of raw materials and decided to diversify and industrialize in a process that became known as import substitution industrialization (ISI).

Liberalism was eclipsed by a new political philosophy – populism. Populism was largely an urban movement, as the cities and industry grew. New leaders saw that they could build a political base among the working class, labor unions, and middle classes. Charismatic leaders pledged to address popular concerns, and they did so via neighborhood improvements, low fares for public transportation, new and higher employment benefits, and expanded free education, all paid for with deficit spending. These benefits provided workers with the best conditions they had ever enjoyed. But populism was a hierarchical system directed from above, built on the charisma of a single leader. Most famous of the populist leaders was Argentina's Juan Perón, who built his power base as head of the Secretariat of Labor and Social Security. He was elected in 1946 with the slogan "economic growth and social justice," and governed with his equally charismatic wife, Evita, at his side.

As part of economic nationalism, some countries sought to gain greater control of their resources. Getúlio Vargas in Brazil convinced the United States to help fund a national steel industry with a plant at Volta Redonda. In

1938 Lázaro Cárdenas, the Mexican revolutionary leader who was adored for providing millions of hectares of land via agrarian reform, also nationalized foreign oil companies who refused to respect Mexican labor laws, forming *Petróleos Mexicanos* (PEMEX).

As the Second World War ended, Latin Americans chose to continue the ISI strategy of producing their own manufactured goods. Initially prompted by necessity, leaders after the war worked intentionally on diversifying their economies. Their strategy had the support of Raúl Prebisch, an Argentine economist who headed the Economic Commission for Latin America, one of the many new international agencies formed by the new United Nations. The United Nations was part of the new international order created in the wake of the Second World War. In a meeting at Bretton Woods, New Hampshire, the Allies agreed to a new international order that would include the International Bank for Reconstruction and Development (World Bank), the International Monetary Fund (IMF), and the General Agreement on Tariffs and Trade (GATT). The new organizational structure was designed to resolve the kinds of economic problems that had led to the Second World War.

The defeat of fascism inspired Latin Americans to force their own dictators from power, and many of the Depression-era dictators began to fall. As their economies recovered, the masses, mobilized by populism and ISI, demanded democratic change. Democratic governments came to power in Guatemala, Venezuela, and Peru. But the democratic opening was closing by 1948, as US leaders made it clear that their interests would be better served by free trade than by economic nationalism in Latin America. The US government preferred leaders, however dictatorial, who would support those interests.

## The Cold War

The short-lived alliance of the Soviet Union and the United States gave way after the Second World War and was replaced with the international rivalry that became known as the Cold War. The United States fostered a fear of communism, claiming it was a totalitarian system. The real concern, however, was that communist countries, as non-market societies, would hurt the growth of the US economy, which needed foreign markets, and hurt US firms, which sought the global exploitation of resources and labor. The United States had no trouble supporting repressive regimes if they professed anti-communism. Authoritarian Latin American leaders quickly learned that all they had to do was claim a communist threat in order to attain US support.

Instead of being fought directly by the two superpowers, the Cold War was waged in proxy countries and by secret forces. The US Central Intelligence Agency, fresh from its successful overthrow of Prime Minister Mohammad Mosaddegh in Iran, turned its attention to the democratic government of Jacobo Arbenz in Guatemala in 1954. Democracy had been achieved in Guatemala with the overthrow of Jorge Ubico in 1944 and subsequent election of Juan José Arevalo. As his successor, Arbenz vowed to modernize Guatemala's economy, which was dominated by Guatemalan coffee growers and the United Fruit Company, the banana exporter that owned 40 percent of national territory as well as the railroad and the facilities at Puerto Barrios. Arbenz was determined to carry out an agrarian reform to benefit the landless majority. His government offered to pay for expropriated land at the value last declared by the owners for tax purposes. Guatemala's coffee growing elite would have called on the United States for help, but their concerns were conveyed by United Fruit, which had unusually close connections to the administration of President Dwight Eisenhower. In 1954, a CIA coup overthrew Arbenz and installed dictator Carlos Castillo Armas, who rolled back the agrarian reform and persecuted Arbenz's supporters.

But the Guatemalan Spring was a mild reform compared to what would follow. In 1959, Fidel Castro, aided by Argentine Ernesto "Che" Guevara, led a revolutionary movement that unseated Cuban dictator Fulgencio Batista. The revolution took both Latin America and the United States by surprise. Cuba had been considered one of the more prosperous Latin American countries, but that prosperity was unevenly distributed. The majority of Cubans depended on the sugar harvest, which provided work only a third of the year. Batista had ruled as dictator since his 1952 coup and had controlled Cuba for much of the twentieth century.

The effects of the Cuban Revolution rippled through Latin America. The revolution showed the left that a small group of guerrillas could spark a struggle that could topple an entrenched dictator supported by the United States. Cuba's new leaders were serious about sweeping changes – agrarian reform, lowering of utility costs, year-round employment, and universal free education and health care. To make these changes, the government inevitably came into conflict with the many businesses owned by US companies. In retaliation, the United States cut Cuba's sugar quota, established a trade embargo, and broke diplomatic relations.

US leaders were convinced that in Cuba they could replicate Operation Success, the 1954 coup that overthrew Arbenz in Guatemala. In fact, the compliant regime in Guatemala allowed the CIA to use a Guatemalan ranch

to train for a secret invasion of Cuba. The invasion force was launched from the coast of Nicaragua, where President Luis Somoza Debayle himself saw them off. Cuba, however, was prepared for the invasion at the Bay of Pigs. Fidel led the forces at Playa Girón, and the invasion was a disaster for the United States. Cuba became an international hero, a David defeating Goliath. But Cuban leaders knew they could not survive on their own. The nationalist revolution became a socialist one as well, and Cuba reached out to the only other power that could help – the Soviet Union. The Soviets paid above-market prices for Cuban sugar and helped bankroll social reforms.

Cuba was a heady example for nationalist groups around the world who hoped to defeat colonialism and neo-colonialism. Led by bearded revolutionaries in military fatigues, Cubans in massive numbers participated in the new government. Che Guevara, the handsome, charismatic Argentine, spread the gospel of *Guerrilla Warfare* in his 1960 book, a manual for future revolutionaries. In 1966, Havana hosted the Tricontinental Solidarity Conference, with representatives from Latin America, Africa, and Asia. Che had already left Cuba to lead revolutionary forces in the Congo and Bolivia. But his famous Message to the Tricontinental, read in his absence, called for “two, three or many Vietnams” to flourish throughout the world.

Throughout the 1960s, young Latin Americans heeded Che’s call, and guerrilla movements emerged in every Latin American country, becoming the excuse for repressive military regimes throughout the region. The United States responded in two ways: one was to establish the Alliance for Progress, which funded reform in Latin America, including the encouragement of the kind of agrarian reform the United States had labeled communist in Guatemala. The Alliance for Progress also secretly provided counter-insurgency training for Latin American police and military, who unleashed a wave of repression throughout most of the region.

The United States supported reformist governments throughout Latin America in hopes of preventing more revolutions. But the reformers found that entrenched elites had no interest in agrarian reform and improved conditions for labor. The weakness of these centrist governments made them vulnerable, and they were largely overthrown by military juntas, which believed civilian rule to be incapable of keeping order and preventing communism. The one exception was the government of Chile.

Chile was a showcase for the Alliance for Progress, and the United States tried to help President Eduardo Frei to carry out reforms. But the right wing found even the centrism of Frei too radical, and the left felt that Frei was too

conservative. In the 1970 election, with the center weakened, Chile elected socialist Salvador Allende. Allende vowed to carry out a peaceful socialist revolution, increasing wages, distributing land, and nationalizing the copper industry. Like Cuba before it, Chile's revolution drew worldwide attention to the possibility of radical change, this time carried out within an existing political framework. But Chile's long history of democracy did not save it from a bloody coup in 1973, as the CIA teamed up with the Chilean right wing to support a violent coup by Gen. Augusto Pinochet, whose dictatorship would last seventeen years, with 40,000 people tortured and 4,000 disappearing. The coup signaled to other Latin Americans that peaceful change was not possible.

The only other successful revolutionary movement in the region was in Nicaragua, led by the Sandinista National Liberation Front, which succeeded in 1979 in toppling Anastasio Somoza Debayle, the last of a dynasty of dictators, which had begun with Anastasio Somoza Garcia in 1936 before passing to his two sons, Luis and Anastasio. The Sandinistas carried out agrarian reform, expanded education and health care, and sponsored the first democratic elections in Nicaraguan history. Their commitment to a mixed economy and political pluralism offered yet another view of revolutionary change. Thousands of Americans and Europeans traveled to Nicaragua to help rebuild the country and participate in solidarity. The United States responded by using the CIA to organize the remnants of Somoza's vicious National Guard into a counter-revolutionary force, which terrorized Nicaragua for much of the 1980s. The United States also imposed an economic embargo, similar to those imposed on Cuba and Chile. In 1990, after a decade of struggle, the Sandinistas were voted out of power.

The Sandinistas had been brought down in no small part by economic difficulties. The 1980s became known as the Lost Decade in Latin America. During the 1970s, the oil producing countries of the Middle East took control of their resources and increased the price of oil. They deposited those profits in European and US banks, which in turn invested in the modernizing governments of Latin America. The debts were contracted at low interest rates, and as long as the debtor countries continued to successfully export their products, repayment was not a difficulty. But the 1979 oil crisis sparked a worldwide recession as the industrialized countries wrestled with the increased cost of fuel. The recession meant the decline of markets for Latin American goods. Meanwhile, the floating interest rates on Latin America's loans doubled. In 1982, Mexico announced that it could not repay its debts and was quickly followed by many other Latin American countries.

The economic shocks would help usher in another democratic era. The rule of the Argentine generals who waged the ruthless so-called Dirty War (1976–1983) – in which 30,000 people disappeared – ended more because of economic failure than because of their brutality. Groups began to organize against the dictators, most notably the Mothers of the Plaza de Mayo, who, wearing their signature white kerchiefs, marched every week in front of the Casa Rosada demanding the return of their missing children. The embattled generals tried to distract the population by launching a war to reclaim the Malvinas Islands in 1982. The generals gambled that the British would not bother to defend the distant islands, populated by fewer than 2,000 English-speaking residents and 600,000 sheep. However, British Prime Minister Margaret Thatcher was having her own problems with national discontent over the dire economy. She, too, banked on a patriotic diversion and sent troops to defend the Falklands. The ill-trained Argentine troops were easily defeated, discrediting the generals in their one legitimate role as defenders of the nation. In 1984, Argentina returned to civilian government (Map 20.3).

### From neo-liberalism to neo-populism

During the 1980s debt crisis, Latin American governments turned to the International Monetary Fund for financial assistance. The aid came with strings attached – the governments had to cut state spending so that they could repay their debts. Since, obviously, the military would not be cut, the governments instead cut social programs and subsidies to such services as bus fares. To increase elite income and encourage investment, the authoritarian governments used force to repress unions and drive down wages. The elites lessened their focus on industrialization and diversification, and instead returned to the old reliable liberal model of exporting primary products.

This neo-liberalism, ushered in by the IMF, was reinforced in the 1990s by what became known as the Washington Consensus. It was characterized by privatization of public activity, deregulation of private activity, cuts in social spending, encouragement of market solutions to social problems, and promotion of free trade, particularly through regional agreements such as the North American Free Trade Agreement. In all the neo-liberal “success” stories, as exemplified by Chile, there was macroeconomic growth, as high as 10 percent a year. But the success was achieved via stagnant or declining real wages, loss of social benefits, and growth in the informal economy and poverty. This in turn led to urban and rural decay, the breakdown of communities, and environmental degradation. The new civilian governments of the 1990s adopted the



Map 20.3 Latin America today

neo-liberal agenda. While they had favored political democracy, they had little interest in economic democracy, and by the end of the decade, those governments faced popular challenges.

Neo-liberalism was shocking for many Latin Americans because it marked the end of the economic nationalism that had been the hallmark of the twentieth century. Even in Mexico, where in 1938 the people had rallied behind Lázaro Cárdenas's nationalization of the oil industry, the government reduced the number of state-owned businesses from 1,050 enterprises in



1983 to 210 in 2003 – and many of those sales were to foreigners. Wealth became more concentrated, and many people lost basic services, such as water, as governments rushed to privatize. By the end of the decade, Latin Americans were protesting throughout the region, bringing down the neo-liberal governments.

In 1998, Hugo Chávez was elected president of Venezuela, the first of a new wave of Latin American leaders – dubbed the Pink Tide – who challenged neo-liberalism. Chávez, an admirer of the Cuban Revolution, had the country's vast oil resources to use for poverty programs in Venezuela and to fund change throughout the region. Candidates who vowed to eliminate neo-liberal policies were elected throughout Latin America in the first decade of the twenty-first century: former labor leader Luis Lula Inácio da Silva, "Lula," in Brazil; Argentina's Néstor Kirchner, a Peronist, who successfully renegotiated the country's debt and defied the International Monetary Fund; Bolivia's Evo Morales, the first indigenous president; Ecuador's Rafael Correa, who ejected the United States from its military base. Even in Nicaragua, Sandinista leader Daniel Ortega returned to power. All of these governments rejected neo-liberalism in favor of a market-based economy that included a significant role for government, particularly in the management of national resources and provision of social services.

The new governments launched a new era in which radical reforms were enacted by governments that reached power through popular election and re-election. With the fall of the Soviet Union in 1991, Latin America was no longer subject to Cold War tensions. The United States became preoccupied with other areas of the world, especially after the 9/11 attacks, and its influence in Latin America diminished.

Around the world, images of Evo and Hugo joined those of Che and Fidel as inspirational leaders. But Latin America's new generation of leaders still struggle with their historic problems, trying to manage natural resources, provide for the majority, transform their economies, advance democracy, and negotiate between national and international interests.

### Further reading

- Acree, William G., and Juan Carlos González Espitia, eds. *Building Nineteenth-century Latin America: Re-Routed Cultures, Identities, and Nations*. Nashville, TN: Vanderbilt University Press, 2009.
- Barr-Melej, Patrick. *Reforming Chile: Cultural Politics, Nationalism, and the Rise of the Middle Class*. Chapel Hill, NC: University of North Carolina Press, 2001.

- Beezley, William H. *Judas at the Jockey Club and Other Episodes of Porfirian Mexico*, 2nd edn. Lincoln, NE, and London: University of Nebraska Press, 2004.
- Benjamin, Thomas. *La Revolución: Mexico's Great Revolution as Memory, Myth, and History*. Austin, TX: University of Texas Press, 2000.
- Bergquist, Charles. *Labor in Latin America: Comparative Essays on Chile, Argentina, Venezuela, and Colombia*. Stanford University Press, 1986.
- Bouvard, Marguerite Guzman. *Revolutionizing Motherhood: The Mothers of the Plaza de Mayo*. Wilmington, DE: Scholarly Resources, 1994.
- Bulmer-Thomas, Victor. *The Economic History of Latin America since Independence*, 2nd edn. Cambridge University Press, 2003.
- Burke, Janet, and Ted Humphrey, eds. *Nineteenth-century Nation Building and the Latin American Intellectual Tradition: A Reader*. Indianapolis, IN, and Cambridge, MA: Hackett Publishing Company, 2007.
- Bushnell, David, and Neill Macaulay. *The Emergence of Latin America in the Nineteenth Century*, 2nd edn. Oxford University Press, 1994.
- Canak, William L. *Lost Promises: Debt, Austerity, and Development in Latin America*. Boulder, CO: Westview Press, 1989.
- Castro, Daniel, ed. *Revolution and Revolutionaries: Guerrilla Movements in Latin America*. Wilmington, DE: Scholarly Resources, 1999.
- Charlip, Julie A., and E. Bradford Burns. *Latin America: An Interpretive History*, 9th edn. Upper Saddle River, NJ: Prentice Hall, 2011.
- Chasteen, John Charles. *Americanos: Latin America's Struggle for Independence*. Oxford University Press, 2009.
- Chomsky, Aviva. *A History of the Cuban Revolution*. Malden, MA: Wiley-Blackwell, 2011.
- Coniff, Michael L. *Populism in Latin America*, 2nd edn. Tuscaloosa, AL: University of Alabama Press, 2012.
- Drake, Paul. *Money Doctors, Foreign Debts, and Economic Reforms in Latin America from the 1890s to the Present*. Wilmington, DE: Scholarly Resources, 1994.
- Earle, Rebecca, ed. *Rumours of Wars: Civil Conflict in Nineteenth-century Latin America*. London: Institute of Latin American Studies, 2000.
- Gleijeses, Piero. *Shattered Hope: The Guatemalan Revolution and the United States, 1944–1954*. Princeton University Press, 1991.
- Gonzales, Michael J. *The Mexican Revolution, 1910–1940*. Albuquerque, NM: University of New Mexico Press, 2002.
- Gott, Richard. *In the Shadow of the Liberator: Hugo Chávez and the Transformation of Venezuela*. London: Verso, 2000.
- Lewis, Paul H. *Guerrillas and Generals: The "Dirty War" in Argentina*. Westport, CT: Praeger, 2002.
- Macdonald, Laura, and Arne Ruckert, eds. *Post-neoliberalism in the Americas: Beyond the Washington Consensus?* New York: Palgrave Macmillan, 2009.
- McCartney, Paul T. *Power and Progress: American National Identity, the War of 1898, and the Rise of American Imperialism*. Baton Rouge, LA: Louisiana State University Press, 2006.
- Qureshi, Lubna Z. *Nixon, Kissinger, and Allende: U.S. Involvement in the 1973 Coup in Chile*. Lanham, MD: Lexington Books, 2009.
- Rock, David, ed. *Latin America in the 1940s: War and Postwar Transitions*. Berkeley, CA: University of California Press, 1994.

- Santoni, Pedro, ed. *Daily Lives of Civilians in Wartime Latin America: From the Wars of Independence to the Central American Wars*. Westport, CT: Greenwood Press, 2008.
- Thorp, Rosemary. *Progress, Poverty and Exclusion: An Economic History of Latin America in the 20th Century*. Washington, DC: Inter-American Development Bank, 1998.
- Topik, Steven C., and Allen Wells, eds. *The Second Conquest of Latin America: Coffee, Henequen, and Oil During the Export Boom, 1850–1930*. Austin, TX: University of Texas Press, 1998.
- Wright, Thomas C. *Latin America in the Era of the Cuban Revolution*. Westport, CT: Praeger, 2001.

## Africa in world history

FREDERICK COOPER

World history began in Africa.<sup>1</sup> Most theories of human origins point to the emergence of our species in Africa, some 100,000 to 250,000 years ago and its dispersal from there. If one goes back far enough, we are all Africans.

The depth of Africa's past became an argument for its liberation in the twentieth century. When W. E. B. Dubois published *The World and Africa* in 1946, he placed Africa in the long sweep of world history. He described how Africans had mastered their environment and the creativity of political processes, going back to Egypt from 5000 BC onward, passing through Ethiopia, to the great African empires from the ninth to the sixteenth centuries, and the powerful states on the eve of colonial conquest. The history of Africa's peoples was not that of communities developing their own cultures in isolation, but of engagement with people, commodities, and ideas from across and beyond the continent. It was a story of Africa's contributions to humanity. Some of these themes had been articulated long before by African and African-American intellectuals, religious leaders, and political activists, going back to the days of North American slavery. Making the connection to Africa – and asserting the continent's place in world civilization – was one way for slaves or freed blacks to refuse to consign themselves to being chattel and nothing more. Many referred to themselves as Ethiopian, not because many slaves came from that part of Africa, but because, as Christians, they knew the stories of Solomon and the Queen of Sheba and were inserting themselves into a grand narrative of Christian history. Some Africans and African Americans asserted that Egyptian civilization was rooted in Africa and hence that European civilization came out of Africa. For intellectuals like Cheikh Anta Diop in the 1950s, the claim that Africa had a place in the world's past was part of their demand for political liberation in the present.

1 The focus of this chapter is Sub-Saharan Africa, with occasional forays beyond.

The conundrum such thinkers faced, ever since the eighteenth century, was that the connection that was foremost in the minds of non-Africans – and which affected millions of Africans – was the slave trade. The assertion by the descendants of Africans of a past that was both proud and influential was a counter to two different conceits promoted by many people of European descent. For some Europeans, from the fifteenth to the nineteenth centuries, Africans were the enslaveable other – exploitable at will. For others, in the nineteenth and twentieth centuries, Africans were victims, a reflection of a European society given over to greed and aggrandizement. With the anti-slavery movement, the latter interpretation gained pride of place, but it did not so much restore, in European eyes, the honor of the victims of the slave trade as it signified that Africans had been tainted by enslavement and would have a long road to follow to make themselves capable of acting like free people in a competitive world. When advocates of colonization in the late nineteenth century wanted to convince more humanitarian-minded compatriots that conquest was a morally defensible act, they drew on images out of the slave trade debates: of Africans debased both as victims and as perpetrators of enslavement. We need both to see the place of such arguments in history and to look beyond them in our understanding of the slave trade, colonization, and – above all – the ways Africans sought to make their lives in the world throughout history.

### The slave trade after 1750

Some of the most important recent studies of the Atlantic slave trade have focused on its origins and found them in the intersection of networks that connected different worlds – on, for example, a Mandinka trading network coming out of the fifteenth-century Mali Empire connecting to an Iberian network coming to the coast of Guinea-Senegambia via the Cape Verde Islands, giving rise in coastal ports to a mixed society whose economic basis was, increasingly, trade in slaves. In West Central Africa, what Linda Heywood and John Thornton call an “Atlantic creole” society emerged, but it was hardly a bounded social formation, as alliances and conflicts between armed Portuguese and African groups followed a shifting pattern.<sup>2</sup> Whether

2 Whether the word “creole” adequately captures the phenomenon is controversial, but the intersection of different networks and political structures and the cultural and racial mixing at the nodes is clear. Direct European military presence was important in Angola, but not in most of West Africa. Linda Heywood and John Thornton, *Central Africans, Atlantic Creoles, and the Foundation of the Americas, 1585–1660* (Cambridge University Press,

such intersections functioned smoothly or gave rise to unstable patterns of conflict, the result was the production of slaves. In some cases, like Asante, a kingdom that had initially consolidated itself through control of agriculture and gold exports became more powerful in the mid-eighteenth century through the export of slaves. The overseas slave trade allowed the king to import firearms and commodities that could be distributed to his supporters. In others – notably the Aro Chukwo of what is now Nigeria – a less monarchical, more network-like system consolidated control of the enslavement process and linked itself to “houses” – lineages extended by the incorporation of clients, slaves, and ex-slaves – that controlled the sale of slaves to European ships. In other cases, the slave trade could not be so tightly controlled, leading to concentration of power for a time, followed by fragmentation as rivals gained access to slave markets. It would be a mistake to see all of Africa in the late eighteenth century as given over to the slave trade, but at this time the effects along the coast from Guinea to Angola, with tentacles reaching inland, were strong.

To some kings and merchants, participating in the slave trade made sense because both the obtaining and the disciplining of slave labor occurred externally to their power base. Rather than having to extract labor or income from “their own” people, they raided far afield and sold the people they captured, giving up the potential profits of exploiting labor directly while avoiding the risks of doing so – escape, rebellion, the forging of local connections by imported slaves. The difficulties African rulers had in systematically exploiting their populations *in situ* took on the tragic meaning it did because it coincided with one of the ugliest and most central dimensions of European history from the sixteenth century onward – the voracious appetite for labor in places, notably the Caribbean sugar islands, where indigenous populations had been killed off and where people with any choice in the matter did not want to go. Some African rulers and communities refused to sell slaves at times, but once one state in the region got into the slave-trading business, its capacity to make war and stage raids was increased. Whether, here or elsewhere, slaves were a by-product of political conflict or a cause, is something of a chicken-egg problem, for the availability of an outlet for captives and incentives that external markets provided shaped the nature of polities. It was in the Atlantic spatial system – at its height in the late eighteenth century – that the dehumanization of the slave trade reached an extreme. But it was also within the Atlantic that systematic opposition to the slave trade built up.

2007); Toby Green, *The Rise of the Trans-Atlantic Slave Trade in Western Africa, 1300–1589* (Cambridge University Press, 2012).

The demographic impact of the slave trade is not easy to gauge. At least 10 million Africans were shipped across the Atlantic over four centuries (but especially the eighteenth and early nineteenth), and many more died as a consequence of the violence and disruption within Africa. Although the majority of people exported were male, the loss of reproductive power was considerable too. There was a redistribution of population within Africa as well, since some of the slaving states retained slaves (especially females), while areas along their frontiers lost people. Many people took refuge in locations that offered a measure of protection rather than the best opportunities for farming. Scholars debate the extent to which the introduction of new crops from the Americas – maize and cassava most notably – offset the demographic impact of the slave trade, but they clearly did not lessen its impact on security and political relationships.<sup>3</sup>

In Eastern Africa, the slave trade to the coast and then across the Indian Ocean was greatly expanded from the late eighteenth century onward, to some extent feeding new demand from European-held islands in the ocean but also extending the older pattern of slave exports to the Red Sea, Persian Gulf, and South Asian regions. With less prior development of centralized kingdoms than in West Africa (except for Buganda, Rwanda, and some others), the East African slave trade produced an even higher degree of insecurity than its western equivalent, for today's slave seller was more likely to be tomorrow's victim. Some coastal people – Muslims, often of mixed Afro-Asian origin – established power bases inland, spreading the Swahili language along with the violence, insecurity, and shifting quests for patrons, protection, and profit. The trans-Saharan slave trade also continued into the nineteenth century, at a less frenetic pace than the Atlantic variant, driven by demand for slaves in North Africa, networks that transported slaves, and militarized polities south of the desert that captured them.

### The ambiguities of connections in the nineteenth century

Looking at Africa over the course of the century, what stands out is the complex relationship of new connections to new boundaries, of integration

3 On this and other demographic questions, see John Iliffe, *Africans: The History of a Continent*, 2nd edn (Cambridge University Press, 2007); he both uses and questions Manning's pioneering work on slave trade demography: Patrick Manning, *Slavery and African Life: Occidental, Oriental, and African Slave Trades* (Cambridge University Press, 1990).

to marginalization, of inclusion to distinction-making. At least as important as the extent of connections across space was their unevenness.

Around 1800, the Atlantic slave trade was at its height. Then, the rules of long-distance commerce changed. Why Britain decided in 1807 to forbid its subjects to engage in the slave trade and to begin a long campaign to prevent other people from doing so (and abolished slavery in its colonies in the 1830s) is a subject of controversy, but the effects on Africa were not what abolitionists expected. With British naval vessels patrolling the West African – and later the East African – coast, slave trading was subject to new risks, but with Cuba and parts of Brazil demanding new slaves for developing plantation and mining economies, many took the risk. It was mid-century before the Atlantic trade died down.

But the very process lowered the price of slaves within Africa, while industrializing Europe's demand for tropical products increased the importance of agricultural slavery within the continent. In Dahomey (West Africa), the export of palm oil (increasingly in demand as a lubricant and an ingredient in soaps) enhanced the importance of the slave plantation; in northern Nigeria, a varied regional commerce made use of slaves, whose supply was augmented by regional warfare and the consolidation of an Islamic state system; in Zanzibar around mid-century, clove production – much of it destined for markets in South and Southeast Asia, but with linkages to Europe and North America – took off rapidly, fed by the increasing regional availability of slaves. Sugar production on European-controlled islands in the Indian Ocean added to the demand for slaves coming out of East Africa, and with British pressure against overt slave trading, buyers found ways to disguise what they were doing as “contract” labor.

The growth of the so-called legitimate trade did not alleviate the highly uneven distribution of political and economic power across Africa. Some powerful kingdoms, like Buganda, became more powerful amidst the shifts in external linkages. Others, like Asante, feared that losing the ability to export slaves would both hurt revenue and forfeit the surest means of avoiding slave revolt within the kingdom, but managed to weather the storm. And new sorts of state-building projects developed in the nineteenth century. One was the rise of the Zulu kingdom after 1818, perhaps influenced by pressures and incentives coming from coastal colonies, but whose patterns reflect local innovation. A man from a minor chieftaincy, Shaka, combined two sorts of innovation: one technical, the other social. He equipped his armies with a short stabbing spear, better suited to sowing terror than the long throwing spear. And he organized men into age regiments – based on the time of their



initiation into adulthood – cutting across the kinship groups of this Nguni-speaking society and creating loyalty to regiments directly controlled by the king. Success depended on continual warfare and the acquisition of booty to distribute. By associating a set of women with each age regiment, the monarchy extended its control to the realm of reproduction. Shaka was assassinated by a half-brother, but the kingdom lived on, and more importantly it sent shock waves throughout a wider region: some polities were defeated and incorporated, while others adopted Zulu tactics and inflicted terror on their neighbors, a process that reached as far as present-day Tanzania. The Zulu kingdom eventually was confronted with another new political development: the “trek” of Afrikaans-speaking white settlers from the Cape. The Zulus’ final undoing came, however, when the British army, on its second try after a humiliating defeat at the hands of Zulu warriors, conquered the kingdom in 1879 and broke it up into thirteen chieftaincies.

An even larger-scale development was the transformation of politics in the Sahel by a series of *jihads* beginning in the late eighteenth century. They had a basis in the political instability and insecurity across the region, affected both by the trans-Saharan slave trade to the north and the vagaries of the Atlantic trade to the west and south. But the inspiration came from connections among Islamic teachers and political elites influenced by them, spread by networks across the desert and along its southern edge among teachers and the development of the Qadiriyya and Tijaniyya brotherhoods. The *jihads* were inspired by the quest for a more rigorous Islamic polity as opposed to the more mixed forms that had spread unevenly across the region. The most powerful of all, in what is now Northern Nigeria, was led by Fulani, whose mobility contributed to the expansion of the network, but it was not an ethnic movement so much as an expression of a universalistic type of Islam. Consolidation of the *jihadi* states entailed much violence and produced many slaves, but it ended in this region with a solidly established system of emirates looking for spiritual and political guidance to the *jihad*’s leader, Usman dan Fodio, and his successors centered in Sokoto. The appeal of this kind of Islamic movement made possible an expansion of scale elsewhere as well: an Islamic polity centered in Macina on the Niger River, and to the west the great state put together by El Hajj Umar in the 1850s and early 1860s.

### Scrambling for Africa

In the mid-nineteenth century the increasingly industrialized, wealthy countries of Western Europe were able to get raw materials from Africa

via commercial networks. The choices that European powers confronted were not between colonizing Africa or having no relationship with its diverse polities. Why, then, in the last quarter or so of the century did a scramble for African colonies ensue – one which left virtually all of the continent, except for Liberia and Ethiopia, as a colony or protectorate of one or another European power? To begin with, economic access could be choked off at nodal points as well as enhanced by the development of commercial networks. Europe was divided into rival polities; power in Africa was highly uneven. Put the two together, and one can comprehend the anxiety that officials in London, Berlin, or Paris felt toward the possibility that rival European powers could form exclusive trading relationships with powerful African rulers, depriving their countrymen of access to the region's resources. Germany's rise as an industrial power helped to precipitate the process by challenging British predominance in overseas trade and naval strength. The scramble for Africa was, above all, pre-emptive colonization, and that is why it happened so rapidly; as soon as one European power made a move, its rivals had to follow (Map 21.1).<sup>4</sup>

The notion of pre-emptive colonization helps to explain why the scramble for Africa was so intense and why, once colonized, the European powers did relatively little with the territory that they had taken over. Conquest was easier than administration, given the vast spaces, linguistic and ethnic diversity, and well-entrenched kinship groups and commercial, religious, and other networks in Africa. Colonial armies, with advanced military technology – notably the machine gun and the telegraph, as well as the use of quinine against malaria – could concentrate forces, terrorize populations, and move on. When it came to continuously running the show, they had to look to indigenous leaders to collect taxes and round up labor – kings, chiefs, kinship elders. Sometimes the “chief” was a European invention, but the most useful was one who had some sort of legitimacy, some sort of capacity to give orders within a local framework. In a few areas – where there were mineral resources or the possibility of settling European farmers, and in urban areas – colonial administration could be tighter and more directly oppressive.

### Colonial rule and global connections

Was colonization a step toward – or away from – integrating Africa into global circuits – of goods, capital, people, and ideas? European powers

<sup>4</sup> This argument is put in the context of a *longue-durée* history of empires in Jane Burbank and Frederick Cooper, *Empires in World History: Power and the Politics of Difference* (Princeton University Press, 2010).



Map 21.1 The partition of Africa

hoped that colonization would give them surer access to a range of commodities, but their success in this regard was mitigated. Colonizing powers could by a mixture of coercion and incentives get Africans to grow certain crops desired elsewhere, but the quest for reliable production of, for example, cotton was often frustrated. Some of the biggest success stories of “colonial” agriculture – cocoa in the Gold Coast, for example – occurred outside of colonial control, as African farmers took shoots brought by Swiss missionaries, mobilized the resources of kinsmen and clients, and built an agricultural enterprise that the colonial state benefited

from but had neither created nor shaped. At times, compulsion played a durable role in agriculture – cotton or sugar cultivation in Mozambique, for example. In some instances, colonial regimes supported the land-grabbing and labor-hungry actions of white settlers, while getting most of their revenue from the crops or animal skins brought in by those Africans outside the zones where settlers demanded labor. Agricultural incorporation remained a patchwork.

Meanwhile, colonization had disaggregating effects. The trade routes that pre-dated the scramble often crossed the borders between what would become French, German, British, Belgian, and Portuguese empires in Africa, and state officials impeded such communication, even if they could not stop it. Some groups living near colonial frontiers became specialists at organizing the movement of goods or people across them – for a price. The European firms that moved crops out of Africa were only partially integrating producers into global markets; they were subject to “imperial preference,” to differential tariffs intended to keep trade intra-imperial, to the social networks and preferences of trading firms that sought to turn colonies into “*chasses gardées*” where they could have monopoly privileges. The railroads that colonial powers built were not like the networks that tied together various parts of Europe, or even India. They were drainage networks, mostly single-track, narrow-gauge lines linking interior points with a coastal port.

Africans living near the line of rail had an advantage in marketing crops. Others found it hard to earn cash and often had to seek wage labor in more propitious places. Such migratory patterns developed in many variations: from the interior of West Africa to the African-run farms of the Gold Coast, from regions adjacent to the Copperbelt of Central Africa to the mine towns of Northern Rhodesia or the southern Congo, from a wide area of southern Africa – including Portuguese Mozambique as well as British colonies – to the gold mines of South Africa, from many countrysides to many cities.<sup>5</sup>

Migration was not limited to laborers. “Trade diasporas” had, long before colonization, harnessed social ties to make effective long-distance trading networks, and such forms of ethnic specialization – among peoples known as

5 In some cases migration was coerced – to white farmers in the Côte d'Ivoire until the abolition of forced labor in 1946, to a significant extent in southern Africa or in central Kenya – but in others the initiative to undertake and organize long-distance movement came from Africans, a point emphasized by François Manchuelle, *Willing Migrants: Soninke Labor Diasporas, 1848–1960* (Athens, OH: Ohio University Press, 1997).

Hausa or Dyula, for instance – continued to foster regional trade in ways colonial regimes did not understand. Trade diasporas also brought non-Europeans to Africa: South Asians to East Africa, in a pattern that pre-dated the colonial presence but which was accentuated under British imperial rule; Syrio-Lebanese to both French and British West Africa. Such networks – because of their extra-African connections and because they avoided some of the burdens of social ties to impoverished local communities – often took a privileged place in the commercial mechanisms that brought imported commodities to African towns and villages, fostering access to low-cost items but making it more difficult for locals to break into such market niches.<sup>6</sup>

Colonization brought an increased presence of mission schools – and, until late in the game, a limited effort by the state at education – seemingly giving a segment of the African population access to the literatures, journalism, legal traditions, and scientific publications of the rest of the world. But the parsimony of colonial educative projects meant that they divided people as much as brought them together, giving a few a high premium on their skills. Considered on a family basis, however, the picture is more complicated: a single family might include literate and illiterate members, young men who spent time working in cities and older men and women who stayed in the villages.

One of the most durable divisions colonization instilled was linguistic. Africans spoke many languages – 800 by some counts – but they were also used to communicating across them, and some languages had become *lingua franca* – Swahili, Hausa, Mandinka, Wolof – used by traders over vast spaces. With colonial regimes demanding that Africans interact with them in the imperial language and with clerical employment in the colonial apparatus becoming a desirable aspiration, Africa was being divided into anglophone, francophone, lusophone, etc. blocks.

Some scholars have argued that colonization sharpened distinction-making, as colonial regimes worried about low-level officers or civilian employees forgetting which side of the racial divide they were on. Miscegenation was a particular concern – more so in the late nineteenth century than it had been earlier on, as imperial powers became more conscious of their bourgeois social structure and sought to preserve it overseas. Colonial masculinity could take a variety of forms, from insistence

6 The literature on trade diasporas throughout the world owes much to the pioneering work of Africanist anthropologist Abner Cohen, “Cultural strategies in the organization of trading diasporas,” in Claude Meillassoux, ed., *Development of Indigenous Trade and Markets in West Africa* (Oxford University Press, 1971), pp. 266–284.

that a man was entitled to impose his will on African women and choose to recognize or not recognize his offspring to a notion that sexual restraint was a part of building a durable colonial order.

### World order and colonial rule

Research is increasingly revealing just how unstable the place of colonies – and how uncertain the place of Africa – was in the world order. To a significant extent, scholarly trends have reversed themselves. Post-colonial critique – itself following years in which colonialism was considered a mere sidelight to national histories – tended to treat colonial rule as an all-embracing grid of power imposed on Africans, underscored by strong racial hierarchy. More recent perspectives do not diminish the brutality of colonial rule – if anything the weakness of colonial administrative regimes and the macho sensibilities of many colonizers rendered them all the more prone to extreme violence. But colonial ideology now appears a good deal less coherent than postulated and colonial power more fragmented and uncertain.

Although Britain and France, most notably, made gestures early on toward reforming Africa, they quickly realized the difficulty of either remaking African societies in a European image or systematically exploiting them. On a formal level, both powers forced African societies to abolish slavery, but they had trouble understanding, let alone changing, the varied relations of personal dependence that former masters were able to work out with their ex-slaves. Officials realized soon their dependency on the very elites whose backward or tyrannical ways had justified European colonization. British leaders eventually named this practice “indirect rule” and the French called it “association” but such practices were as old as the imperial form throughout the world. Chiefs or family heads who began to grow export crops could in some circumstances, despite low prices offered by European export firms, acquire a modest prosperity and a reason to give their contingent accommodation to the colonial system. Where young men – or people of slave descent – detached themselves from their “traditional” villages or migrated away from regions where slaveholders held sway, they created both opportunities for colonial economies to obtain cheap labor or for new patrons – such as the peanut-growing Islamic leaders of Senegal – to acquire clients. But they also worried officials who feared the dangers of masterless men or, worse still, masterless women.

Colonial governments barely knew the populations they governed and varied greatly in their curiosity. Some sought to channel the discoveries of

anthropology into a more knowledgeable – and presumably effective – form of local administration, but others thought that the white administrator who “knew his natives” had more to offer than scientific observers. Officials usually thought of Africans not as individuals in direct relation to the state but as members of collectivities – “tribes” – to be commanded through the vertical channels leading from white officials through chiefs (Fig. 21.1). There were virtually no systematic censuses until after the Second World War, so the numbers, let alone the composition, of colonial populations remained largely unknown, and official estimates may well have been off by orders of magnitude. Not until the late 1940s were colonial governments able to measure – or even be interested in measuring – overall economic output, although they did care about export earnings and tax revenues. When economists tried to estimate investment in British Africa in the 1930s, they found that there was relatively little of it, in comparison to investment in the dominions, in other European countries, or in other empires. And British and French governments alike rejected in the 1920s (and in the French case again in the 1930s and early 1940s) proposals for using metropolitan revenue to stimulate economic development.



Figure 21.1 French administrator and African notables, c. 1920  
(Roger Viollet/ Getty Images)



The Depression of 1929 deepened the rigidity of colonial economies, even as it revealed yet again that remote parts of Africa were affected by events halfway across the globe. With the decline of exports, Africans in commercial centers were pushed back into the countryside to face the problems that had made them seek wage labor in the first place. Governments, losing revenue from export taxes, leaned harder on chiefs to collect head taxes. The Depression thus accentuated rural poverty, but the tensions were diffused enough through the large spaces of rural Africa that colonial governments could contain them. It was during the recovery from depression in the second half of the 1930s, as workers returned to cities, mine towns, and railroad depots with wages kept low, no new housing, and no better social services, that tensions, particularly in the British colonies, mounted to a point where officials had to take notice.

The most notable exception to the thinness of administration and weakness of investment in pre-1940s Africa was South Africa. There were two reasons for its path to a certain kind of capitalist development, inflected by race. One was its long history of white settlement, by Dutch settlers going back to 1652, and by a mixture of Europeans after the British took over in the early nineteenth century. By the late nineteenth century, South Africa had a white population of 10–15 per cent. That meant a degree of supervision over Africans could be exercised – by farmers or industrial employers, and by the state via police and administrators. The nineteenth century witnessed the suppression of the autonomy of African polities – from the chieftaincies of the eastern Cape to the once-powerful Zulu kingdom. Settlers took over much land, but in general they lacked the means to farm it using wage labor and preferred instead to keep Africans as tenants, forcing them to pay a rent in kind, money, or labor. Some Africans found that mission communities – with significant landholdings – offered a measure of protection against settlers, particularly Afrikaners (descendants of Dutch settlers) whose “commandos” sometimes enslaved Africans or imposed a particularly harsh order on them.

All this changed beginning in 1866 with the discovery of diamonds near Kimberley. Miners descended on the region. Although Africans were refused the right to prospect directly, thousands were employed. When competition for labor was reduced by the near-monopoly established by the De Beers company and by state policing, the mines instituted a rigid system of control that became a model for South Africa: keeping men on contract, confining them to compounds, and keeping control of the movement of men by requiring them to keep at all times a pass-book – an internal passport. But laborers flocked from much of the region, including Portuguese



Mozambique, attracted by the possibility of being able to bring back money saved from wages (low as they were) and, in some cases, to escape forced labor nearer to home. When gold was discovered in the Witwatersrand in 1886, similar methods were used to control labor, but the scale was now much larger – 100,000 mineworkers at times. White miners were a significant factor too, and they tried to defend a superior status and working conditions. The food needs of the mines and accompanying industries and services expanded the market for maize and encouraged farmers to shift to a more capitalistic form of agriculture, expelling tenants, buying equipment, and hiring wage workers as needed.

The British government and Afrikaner elites – who had organized themselves into republics under the imperial umbrella – clashed over the state's increasingly intrusive form of government, climaxing in the so-called Anglo-Boer War, won with considerable difficulty by the British in 1899–1902. The government then set about “Reconstruction,” laying out a segregated spatial order, in which Africans were supposed to live in “reserves” under indigenous chiefs except when they were working for whites. Afrikaner elites soon found a prosperous place in the system – what has been called the “alliance of gold and maize” – and by 1910 the British government was confident enough in their incorporation into an economy linked to British and international capital that it allowed South Africa to become a self-governing dominion within the British Empire. Under the leadership of former Afrikaner generals like Jan Smuts, such an alliance managed to preserve the common interest of English and Afrikaans-speaking elites. The government went to considerable efforts to appease – mostly at the expense of Africans – Afrikaner workers or small-scale farmers, for whom Afrikaner nationalism had strong appeal.

A mere 13 percent of the land area of South Africa was designated for African farming – under systems of communal land tenancy – and Africans were forbidden from owning land or renting it (except as labor tenants) in the rest. The system had enough niches and leaks for some Africans to find spaces of relative autonomy in African areas of cities and sometimes in rural areas that were relatively neglected or where a white owner was relatively lax, but the screws were tightening, and with the reserves becoming overpopulated, ecological disaster was piled upon economic and political oppression.

Elsewhere in Africa, the race question was not so clear-cut and not so tightly woven into daily practices, not least because there were often few whites around. The argument that colonial rule, over the course of the nineteenth and twentieth centuries, had as its ideological concomitant a form of “scientific racism” has been questioned by recent scholarship.

Helen Tilley shows that there was no scientific consensus in the twentieth-century British Empire on the biological basis of race. Some dismissed racial categorization altogether; others insisted on a scientific basis for distinguishing human populations physiologically but denied that races could be ranked. Others sought to demonstrate that whites had superior capacities of one sort or another. In France as well, some scientists presented a neat vision of racial hierarchy, but their views were contested by other established figures.

French legislators, with some exceptions, tried to avoid giving race legal sanction. The distinction they preferred was of status, between a subject and a citizen. In principle, under an 1865 law aimed mainly at Algeria, subjects were French nationals but could only become citizens if they gave up their status under Islamic or “customary” law, came under the French Civil Code, and convinced officials that they were following French ways. Few wanted to do so; fewer still were accepted. Subject status implied not only lack of political rights, but being exposed to extra-judicial punishments at the whim of an administrator and at times to forced labor. Some political leaders of the French Third Republic (1870–1940) agonized over the inconsistency with republican ideals, but the distinction remained in place and with the conquest of Sub-Saharan Africa from the 1870s, new peoples were incorporated into the status of subject. Only in the four older enclave colonies of Senegal, the Quatres Communes, were French officials so concerned to have more people on their “side” that they allowed the original inhabitants to have at least some of the rights of the citizen, including the vote, while having their personal affairs come under the jurisdiction of Islamic courts.

If invidious distinction was a daily reality for Africans and a source of ambivalence among rulers, how to change Africa remained a source of controversy. Missionaries posited Africans as malleable, as people who could be converted and instructed, although perhaps not to attain equality with white people. Farmers and mine owners saw them as objects to exploit, but missionaries sometimes opened up scandals over the abuses of exploiters, most notoriously in the attack mounted against the predatory companies that operated under the aegis of King Leopold II of Belgium in the Congo of the turn of the twentieth century. Some officials would have liked to see a more dynamic economy – in which Africans might play more varied roles – but feared above all else disorder, and were often beholden to settler lobbies, especially in Algeria, Kenya, and the states of British southern and central Africa. Africans, most Europeans felt, were poor because they were primitive.

That point of view became harder to sustain in the mid-1930s, largely because the social conflicts that emerged then were empirewide, and not so easily attributable to the nature of the African. Between 1935 and 1938, a series of strikes, demonstrations, and riots erupted in the British West Indies – including Barbados, Jamaica, Guyana, and Trinidad – involving plantation and oil field workers among others, and official investigations made clear they reflected deep-seated resentment over low wages, poor social services, discrimination, and lack of opportunity, in short, poverty. But the West Indies had been British for centuries, and Britain had taken pride in decreeing the emancipation of slaves in the 1830s. Indeed, the government canceled celebrations of the centenary of emancipation in 1938 for fear of bringing out the anger of people who had mainly poverty to show for their freedom. In the same period, there were major strikes in Northern Rhodesia, Kenya, Tanganyika, the Gold Coast, and other colonies. Taken together, a pattern seemed to be emerging, a problem on an imperial scale. In Africa, the first official reports tried to blame the disturbances on men taken out of their “tribal” milieu, but that explanation did not work for the West Indies. Thinking about the empire as a world-spanning phenomenon forced officials in London to rethink the poverty question.

The result was a turning point in colonial policy: the Colonial Development and Welfare Act of 1940. It provided metropolitan funds – although not many until after the Second World War – for projects to encourage production, but above all to provide social services, including housing, education, urban facilities, and transportation. Scientific research received a boost as well. France took up a similar program after the war. Portugal also jumped on the development bandwagon, but its program brought in whites from European Portugal to the African colonies, where they filled the roles of skilled or semi-skilled workers that went to Africans in British or French Africa. Belgium, at least in the copper-rich province of Katanga, had pioneered the provision of minimal social services to wage workers, but its continued refusal to deny trade union or political rights to workers would eventually separate it from French and British actions (see below).

The development paradigm in part reflected economic thinking and practices elsewhere – Keynesian economics, dam building, soil conservation schemes, public health measures, and later the Marshall Plan. But by applying such measures – and systematizing them into a colonial doctrine – the postwar initiatives changed the nature of the game on a global scale: development slowly became the way to think about the place of colonies and

ex-colonies in world order – a place defined by a state of “underdevelopment” that had to be recognized, defined, and overcome. Meanwhile, continued agitation by workers forced French and British officials to think about labor as a specific social problem and – once they realized that keeping workers out of cities was impossible and dysfunctional – to try to shape an urban working class that could, over generations, be acculturated and socialized to new ways of life under the watchful eyes of teachers, nurses, and labor inspectors (and even union organizers), accepting that such a policy implied paying higher wages and providing better benefits. But Africans, where they could get new resources, often used them in unintended ways: financing marketing activities by workers’ wives, building up the lineage of a “big man.” Even more migrants came to cities than could enter such “stabilized” employment, so that the urban landscape became a complex one of formalized and irregular employment and, increasingly, young men and women with little chance of a job, open to joining anti-colonial political movements, support networks of politicians, or gangs. Cities became volatile places, loci of cultural creativity and political tension.

### Decolonization: toward a world of nations?

One of the central narratives of world history, conventionally told, recounts a grand transition from empire to nation state, going from the eighteenth to the mid-twentieth century. The end point appears evident: we now live in a world of nearly two hundred states, each proclaiming its sovereignty. But there is a danger of projecting such a view backward. In 1945, only some Africans wanted or expected such an outcome. Others thought liberation would take other forms: pan-African unity, world revolution. Still others, particularly in French Africa, thought liberation could take place within empire by breaking the distinction between subject and citizen and pushing for equality among citizens. If we assume that the national order of things was natural, we might not even ask how so many people ended up in the 1960s with a political form they had not desired in 1945.

The international context had changed. France’s loss of Indochina and the Netherlands’s of Indonesia to the Japanese, followed by Japan’s defeat, left a vacuum that revolutionary movements led by Ho Chi Minh and Sukarno immediately filled. France and the Netherlands would have to recolonize their Southeast Asian colonies, and they never fully succeeded in the face of growing movements for independence in those countries. India achieved a negotiated decolonization in 1947. Such revolutions marked alternatives of

which both colonial rulers and political leaders in Africa were aware. Meanwhile, colonial ideologies became less convincing in metropolises as well as in the colonies, as Nazism and the war discredited the smug self-confidence that many in Europe once had in white man's rule.

Reconciling Europe's need for African resources – greater than ever – with the political necessity of putting a progressive face on empire, created an opening for demands on European powers, to which development initiatives were one response. South Africa was buffeted by some of the same emancipatory winds as the rest of Africa, but after the victory of Afrikaner nationalists in the election of 1948 it took a different direction: toward aggressive economic development combined with draconian policing of African activities, tighter control over land, sharper differentiation among categories of Africans, and tighter control over Africans' movement between country and city.

While formally organized political parties were not the only locus of political mobilization by Africans, they brought together different modes of protest, crossing the line between literate elites and peasants and workers. In Nigeria and the Gold Coast older, elite organizations turned into mass parties, not simply enrolling individuals but linking networks and organizations. In French Africa, the *Rassemblement Démocratique Africain*, organized in 1946, was notable for grouping political parties in individual territories to act on the level of French Africa as a whole. Both the RDA and its rivals, including the Senegalese party led by Léopold Senghor, focused on claiming the rights of the French citizen. Although only a few Africans were included in the legislature that wrote the new French constitution of 1946, they, with allies, skillfully pushed to extend citizenship to all inhabitants of the "overseas territories," as colonies were renamed. The hated distinction of subject and citizen was abolished, as were the separate judicial system and forced labor. But Africans were a minority in the French legislature, while the assemblies in each territory had little power. Suffrage was not universal. Turning citizenship into a reality was the focus of political mobilization in the 1940s and 1950s: for social and economic equality for all citizens and for autonomy in governing each territory while participating democratically in a larger ensemble – of the French Empire transformed into a federation or confederation of equals.

In British Africa, politics was more territorial. Officials had hoped to channel political activism into local councils, a rejuvenation and reform of indirect rule. But they failed; political movements focused quickly on the center of each colony, demanding that legislative councils become true

legislatures and that Africans acquire executive power. In Belgian and Portuguese Africa, virtually all political action was blocked, but this could only delay and render more violent decolonization, not prevent it.

Social action was necessarily political and political action invariably had social implications. In the 1945–1950 strike wave, trade unions in French Africa kept turning around French assertions of the unity of empire into demands that all workers receive the same pay and benefits. Although political leaders saw workers as a constituency and unions saw political action as useful to their cause, a tension between the idea of equivalence among workers – white or black – and solidarity among Africans grew. Similarly, one must look at a wide variety of movements among peasants – against the intrusiveness of colonial agricultural projects, over land issues, against below-market prices paid to farmers by colonial crop marketing boards – in all their specificity, but recognize the potential that every success any movement had for contributing to a sense of empowerment.

Kwame Nkrumah, Léopold Senghor, and other leaders could draw on a wide range of grievances against the colonial state – from its inequities to its humiliations – to build constituencies for their varied political programs. France and Britain sought to contain political and social movements within carefully constructed boundaries. In certain brutal ways, they succeeded, notably in the French repression of an insurrection in Madagascar (1947) and Cameroon (late 1950s), and in the British suppression of the “Mau Mau” rebellion in Kenya (1952–c. 1957). They set certain limits to who could make claims and for what: not for independence before regimes were ready to hear them and not in the name of movements officials regarded as communist or as “primitive.” But neither power could bound political activity the way it wanted. Both unleashed waves of mobilization, campaigning, and escalating demands for fuller participation and for material resources.

The holding of elections in British and French Africa itself fostered attempts to mobilize whatever social ties politicians could draw upon. In Nigeria, the Gold Coast, or Senegal, teachers, civil servants, and wage workers already constituted a base to build upon. The first generation of politicians used patronage resources to build clienteles. Since such vertical ties tended to link politicians with people to whom they had a regional or ethnic tie, electoral politics fostered an ethnicizing logic. By the early 1950s, even the limited power the African politicians could acquire in territorial legislative bodies was becoming attractive.

Meanwhile, other forms of political connection – from pan-Africanism to Muslim brotherhoods – received no such representation, no such

encouragement, within evolving colonial regimes. The very interest of Great Britain and France in excluding “extremists” gave the “moderates” more room to maneuver, and people like Nkrumah and later Jomo Kenyatta successfully combined enough mass support with enough demonstrated respect for existing economic and political institutions to shed, in official eyes, the label of dangerous demagogue for that of responsible moderate.

The spirit of claim making – by workers for wages equal to those of workers from Europe, by war veterans for equal pensions, by students for equal access to educational opportunity, by farmers for a fair share of the world market price for their crops – trapped Britain and France in a spiral of demands. As early as 1951 or 1952, officials in France and Great Britain were complaining of disappointing results of the development drive: public expenditure was failing to lead to private investment; the inadequate infrastructure was choking on the new supplies of construction materials coming in; lack of trained personnel and the strength of African trade unions in ports, mines, and railroads were driving up labor costs; and African societies were being stubbornly resilient in the face of new-found colonial aspirations to change the way they produced and lived. In fact, this was the great era of expansion of exports – copper, cocoa, coffee – from Africa, the most impressive of the colonial era. But the dynamism of African economies was more chaotic and conflictual than the Eurocentric image of development which officials had in mind. The development project did not do the political work expected of it: development efforts created new points of conflict rather than producing satisfied populations. When white or black farmers used land more intensely, they cracked down on tenants – a major cause of the Mau Mau rebellion in Kenya. Even the success stories of the era – prosperous West African cocoa farmers or operators of transportation fleets – used their gains to challenge European-owned firms or to support political activity critical of colonial rule.

By 1956 or 1957, French and British governments and elements of the press were doing something they had not done before: coldly calculating the costs and benefits of empire. The two governments began to think about extricating themselves. Part of the postwar thinking about development eased the imaginative transition: development (unlike civilization) had come to be defined as a universal possibility, open to people of diverse origins and cultures, so that European elites could convince themselves that Africans aspired to follow a pathway toward a “modern” society even without direct, colonial control. They hoped and expected that Africans would remain in a close relationship to Europe. But there was an element of cynicism too: a desire that African governments, not European ones, take responsibility for complications.



Map 21.2 The decolonization of Africa

The Gold Coast led the way among the colonies of Sub-Saharan Africa to independence in 1957, followed by Nigeria. The leading politicians of French Africa tried until the summer of 1960 to work out some kind of federal structure with France, but they could not agree among themselves over how to do so and ended up in bilateral negotiations with France for independence, trying to preserve for a time by treaty some of the rights which Africans had previously had as French citizens, including the right to move to France (Map 21.2).



In international circles, decolonization created new norms, with countries like India that had gained independence early on using the United Nations and other world fora to chip away at the normality of colonial empire. Political movements in mandated territories like Cameroon or Tanganyika got access to these fora even before independence, and as more countries left empires, those states added a collective voice to anti-colonial politics, expressed at the Bandung Conference of 1955 and the All-African People's Congress in Ghana in 1958.

With empire no longer what it was, whites in Southern Rhodesia now had to defend their supremacy in national terms, declaring independence from Britain in 1965. They fought an ugly war against African guerrilla movements until 1979. Portugal was a dictatorship at home and had no qualms about suppressing political initiatives by Africans, but colonialism in particular territories was hard to sustain in the face of armed struggle supported by already independent neighbors. Portugal was liberated from dictatorship in 1974–1975 through the failure of its African counter-revolution. With the end of colonial rule, France, Britain, Belgium, and Portugal, like their former colonies, became more *national* than they had ever been before.

South Africa's version of white domination had for many years been well within the spectrum of imperial ideologies. But as Britain and France officially repudiated such doctrines and sought legitimacy through fostering development and a degree of political inclusion after the Second World War, South Africa diverged, especially after Afrikaner nationalists acquired effective power in the 1948 elections. The African National Congress (ANC) valiantly fought for an inclusive and democratic society through mass demonstrations, boycotts of transport and rent payment, and public statements of principle.

By the late 1950s, influenced by events elsewhere in Africa, the Pan-African Congress was campaigning for a specifically African claim on political power. Both movements were forced underground in 1960 after the brutal massacre of peaceful demonstrators in the town of Sharpeville. Because of the relatively full development of capitalist enterprise, South Africa was much better able than Rhodesia or the Portuguese colonies to maintain its economy even as it became a pariah nation. But its relatively affluent white population, thinking themselves the representatives of Western, Christian civilization, had difficulty accepting that the world did not accept them on such terms. South African businesses were missing out on access to markets elsewhere in Africa and began to have trouble raising capital. Violence – whether part of the ANC's underground campaign to make South African cities

“ungovernable” or the result of social tensions in a deprived population – was by the 1980s having a demoralizing effect on the minority’s sense of self. This combination of pragmatic calculation and moral crisis led by the early 1990s to the government’s willingness to make a deal with the ANC and Nelson Mandela, under which elections would be held, majority rule installed, and rights – notably that to property – of minorities protected. The ultimate defense of whites’ place in society came to be what the state had denied for many years to Africans – a rights-based regime.

Africans flocked to the polls for the first time in April 1994, bringing to power Mandela and the ANC. Since then, an affluent African elite has emerged, as has a middle class, largely through government employment. Formal equality in access to jobs, wages, and schooling has been instituted, and significant progress has been made in providing electricity and water to urban and periurban communities largely inhabited by impoverished Africans. But South Africa remains one of the most unequal societies in the world. Fuller integration into world markets has made some of South Africa’s industries uncompetitive, while the mining sector remains all-important. That the creation of a landless proletariat went much further in South Africa than anywhere else in Sub-Saharan Africa has translated into a high rate of unemployment. Perhaps the possibility, greater than in many African countries, of becoming rich without being in government, will encourage South African elites to maintain their at least formal commitment to democratic governance.

For most of Africa, the problem that France and Britain confronted in the 1940s and 1950s – and could not solve – remains: how to overcome structural obstacles to social and economic development. As colonial regimes came to an end, the United States and the USSR tried to capture the development ideal for themselves, to seek clients among newly independent states and demonstrate the superiority of capitalist or communist models. For a time, such processes gave elites in post-colonial states room to maneuver: to assert a predominantly national interest in the development process and seek to balance old colonial powers and new world actors against each other.

### A world of nations?

Decolonization – emerging out of local and global political struggles – redefined the meaning of sovereignty worldwide. But it also had its limits. Decolonization did not end social or political inequality or the uneven power to determine the categories of political analysis. It would be a mistake either

to see “colonialism” as a phenomenon that could be turned off like a television set – with all problems instantly turned into “African” responsibilities – or to define a colonial “legacy” that determined Africa’s fate. The anxieties – and the brittle repressiveness – of new African governments reflected as much their appreciation and fear of the diverse movements they had mobilized against colonial rule as their internalization of colonial authoritarianism. Africans had heightened expectations of what citizenship in a sovereign country would bring them, and Africa’s new rulers had reason to fear that they could not meet those expectations. Both colonial regimes and their successors were gatekeeper states, facing great difficulty routinizing the exercise of power outside of capital cities, communications links, and commercial or mining centers, best able to manipulate the interface between inside and outside. They feared that social movements would draw on connections independent of the regime. Post-colonial gatekeeper states were perhaps better able than colonial states to forge relations of clientelism with local power brokers – and they could try to obtain foreign patrons – but without external, coercive power they were vulnerable to any attempt to contest access to the gate itself. Cycles of coups and military governments – and also of repression of citizen action – began shortly after decolonization.

African states nevertheless had their accomplishments in the 1960s and 1970s: modest but positive rates of economic growth, rising levels of literacy, declining infant mortality, and rising life expectancy. Africa’s high rates of population growth put great strain on productive resources.<sup>7</sup> The world recession of the mid-1970s exposed the fact that virtually none of them had achieved their goal of economic independence, particularly from the vagaries of world markets in primary agricultural and mineral products. Vulnerability was compounded by international financial organizations which, in exchange for bailing out states on the financial brink, imposed conditions of “structural adjustment” that undercut efforts at education and health services that might, in the long run, have made African economies more resilient. In southern and parts of eastern Africa the AIDS epidemic reversed the trend toward higher life expectancy; that health services had sometimes been nearly dismantled

7 Most scholars agree that much of Africa has had, in the second half of the twentieth century, among the highest rates of population growth in the world, but precision is hard to come by, since earlier figures are largely backward projections and not all of the censuses taken since the 1940s are reliable. GDP figures remain problematic and trends in per capita income thus hard to pin down. See Morten Jerven, *Poor Numbers: How We Are Misled by African Development Statistics and What to Do About It* (Ithaca, NY: Cornell University Press, 2013).

under structural adjustment made a response to the epidemic all the more difficult, and foreign donors were more likely to focus on the issue of the moment than on rebuilding underlying state capacities. Since 2000, statistics on economic growth in a significant number of African countries have turned favorable – in some cases strikingly so – above all due to the increased demand from China and other emerging markets for Africa's mineral and agricultural resources. There is some evidence of broader economic growth and reduction in poverty, but it is too soon to tell if Africa is experiencing another cycle of export growth or more profound structural change.

In looking back on the last several decades, it is important to keep in mind that few people in 1945 imagined how much and how rapidly Africa's place in the world would change. In less than two decades after the Second World War, colonial empires went from an ordinary fact of political life to the embodiment of illegitimate power, and the idea that Africans could rule themselves went from inconceivable to ordinary. It is equally important that in the course of these decades, political activists imagined different futures, different forms of liberation, different ways of addressing the inequalities among and within states. Perhaps the opening of possibilities in those years tells us something about Africa's future as well as about its past.

### Further reading

- Allina, Eric. *Slavery by Any Other Name: African Life under Company Rule in Colonial Mozambique*. Charlottesville, VA: University of Virginia Press, 2012.
- Allman, Jean Marie. *The Quills of the Porcupine: Asante Nationalism in an Emergent Ghana*. Madison, WI: University of Wisconsin Press, 1993.
- Anderson, David. *Histories of the Hanged: Britain's Dirty War in Kenya and the End of Empire*. New York: Norton, 2005.
- Austin, Gareth. *Labour, Land and Capital in Ghana: From Slavery to Free Labour in Asante, 1807–1956*. Rochester, NY: University of Rochester Press, 2004.
- Bayart, Jean-François. *The State in Africa: The Politics of the Belly*, 2nd edn. Cambridge: Polity Press, 2009.
- Beinart, William. *Twentieth-century South Africa*, 2nd edn. Oxford University Press, 2001.
- Berman, Bruce, and John Lonsdale. *Unhappy Valley: Conflict in Kenya and Africa*, 2 vols. London: James Currey, 1992.
- Bernault, Florence. *Démocraties ambiguës en Afrique Centrale: Congo-Brazzaville, Gabon: 1940–1965*. Paris: Karthala, 1996.
- Berry, Sara. "Hegemony on a shoestring: indirect rule and access to agricultural land." *Africa* 62:3 (1992), 327–355.
- No Condition is Permanent: The Social Dynamics of Agrarian Change in Sub-Saharan Africa*. Madison, WI: University of Wisconsin Press, 1993.

- Branche, Raphaëlle. *La torture et l'armée pendant la guerre d'Algérie*. Paris: Gallimard, 2001.
- Burbank, Jane, and Frederick Cooper. *Empires in World History: Power and the Politics of Difference*. Princeton University Press, 2010.
- Cain, P. J., and A. G. Hopkins. *British Imperialism, 1688–2000*. Harlow: Longman, 2002.
- Cohen, Abner. "Cultural strategies in the organization of trading diasporas." In Claude Meillassoux, ed., *The Development of Indigenous Trade and Markets in West Africa*. Oxford University Press, 1971, pp. 266–284.
- Comaroff, Jean, and John Comaroff. *Of Revelation and Revolution*, Vol. 1: *Christianity, Colonialism, and Consciousness in South Africa*. University of Chicago Press, 1991.
- Conklin, Alice. *A Mission to Civilize: The Republican Idea of Empire in France and West Africa, 1895–1930*. Stanford University Press, 1997.
- *In the Museum of Man: Race, Anthropology, and Empire in France, 1850–1950*. Ithaca, NY: Cornell University Press, 2013.
- Cooper, Frederick. *Citizenship between Empire and Nation: Remaking France and French Africa, 1945–1960*. Princeton University Press, 2014.
- *Decolonization and African Society: The Labor Question in French and British Africa*. Cambridge University Press, 1996.
- *From Slaves to Squatters: Plantation Labor and Agriculture in Zanzibar and Coastal Kenya, 1890–1925*. New Haven, CT: Yale University Press, 1980.
- *Plantation Slavery on the East Coast of Africa*. New Haven, CT: Yale University Press, 1977.
- Cooper, Frederick, and Randall Packard, eds. *International Development and the Social Sciences: Essays on the History and Politics of Knowledge*. Berkeley, CA: University of California Press, 1997.
- Cooper, Frederick, and Ann Laura Stoler, eds. *Tensions of Empire: Colonial Cultures in a Bourgeois World*. Berkeley, CA: University of California Press, 1997.
- Coquery-Vidrovitch, Catherine. *Les Africaines: histoire des femmes d'Afrique noire, du XIXe au XXe siècle*. Paris: Éditions Desjonquères, 1994.
- Dike, K. O. *Trade and Politics in the Niger Delta*. Oxford University Press, 1956.
- Diop, Cheikh Anta. *Nations nègres et culture: De l'antiquité nègre égyptienne aux problèmes culturels de l'Afrique Noire d'aujourd'hui*. Paris: Éditions Africaines, 1954.
- Dubois, W. E. B. *The World and Africa: An Inquiry into the Part which Africa has Played in World History*. New York: Viking, 1946.
- Eltis, David. *Economic Growth and the Ending of the Transatlantic Slave Trade*. New York: Oxford University Press, 1987.
- Falola, Toyin. *The Political Economy of a Pre-colonial African State: Ibadan, 1830–1900*. Ile-Ife: University of Ife Press, 1984.
- Feierman, Steven. *Peasant Intellectuals: Anthropology and History in Tanzania*. Madison, WI: University of Wisconsin Press, 1990.
- Ferguson, James. *Expectations of Modernity: Myths and Meanings of Urban Life on the Zambian Copperbelt*. Berkeley, CA: University of California Press, 1999.
- Freund, Bill. *The African City: A History*. Cambridge University Press, 2007.
- Giliomee, Hermann. *The Afrikaners: Biography of a People*. Charlottesville, VA: University of Virginia Press, 2003.
- Glassman, Jonathon. *Feasts and Riot: Revelry, Rebellion, and Popular Consciousness on the Swahili Coast, 1856–1888*. Portsmouth, NH: Heinemann, 1995.

- War of Words, War of Stones: Racial Thought and Violence in Colonial Zanzibar.* Bloomington, IN: Indiana University Press, 2011.
- Green, Toby. *The Rise of the Trans-Atlantic Slave Trade in Western Africa, 1300–1589.* Cambridge University Press, 2012.
- Guyer, Jane. *Money Matters: Instability, Values and Social Payments in the Modern History of West African Communities.* Portsmouth, NH: Heinemann, 1995.
- Hamilton, Carolyn, ed. *The Mfecane Aftermath: Reconstructive Debates in Southern African History.* Johannesburg: Witwatersrand University Press, 1995.
- Hamilton, Carolyn, Bernard Mbenga, and Robert Ross, eds. *The Cambridge History of South Africa, Vol. 1: From Early Times to 1885.* Cambridge University Press, 2010.
- Harries, Patrick. *Work, Culture, and Identity: Migrant Laborers in Mozambique and South Africa, c.1860–1910.* Portsmouth, NH: Heinemann, 1994.
- Heywood, Linda, and John Thornton, *Central Africans, Atlantic Creoles, and the Foundation of the Americas, 1585–1660.* Cambridge University Press, 2007.
- Hiskett, Mervyn. *The Sword of Truth: The Life and Times of the Shehu Usman dan Fodio.* Oxford University Press, 1973.
- Iliffe, John. *Africans: The History of a Continent*, 2nd edn. Cambridge University Press, 2007.
- Isaacman, Allen. *Cotton is the Mother of Poverty: Peasants, Work, and Rural Struggle in Colonial Mozambique, 1938–1961.* Portsmouth, NH: Heinemann, 1996.
- Jerven, Morten. "African growth recurring: an economic history perspective on African growth episodes, 1690–2010." *Economic History of Developing Regions* 25:2 (2010), 127–154.
- Poor Numbers: How We are Misled by African Development Statistics and What to Do About It.* Ithaca, NY: Cornell University Press, 2013.
- Klein, Martin. *Slavery and Colonial Rule in French West Africa.* Cambridge University Press, 1998.
- Kriger, Norma. *Zimbabwe's Guerrilla War: Peasant Voices.* Cambridge University Press, 1992.
- Last, Murray. *The Sokoto Caliphate.* New York: Humanities Press, 1967.
- Lindsay, Lisa. *Working with Gender: Wage Labor and Social Change in Southwestern Nigeria.* Westport, CT: Heinemann, 2003.
- Lindsay, Lisa, and Stephan Miescher, eds. *Men and Masculinities in Modern Africa.* Portsmouth, NH: Heinemann, 2003.
- Lodge, Tom. *Black Politics in South Africa Since 1945.* New York: Longman, 1983.
- Politics in South Africa: From Mandela to Mbeki.* Bloomington, IN: Indiana University Press, 2003.
- Lovejoy, Paul. *Transformations in Slavery: A History of Slavery in Africa*, 3rd edn. Cambridge University Press, 2012.
- Lydon, Ghislaine. *On Trans-Saharan Trails: Islamic Law, Trade Networks, and Cross-Cultural Exchange in Nineteenth-century Western Africa.* Cambridge University Press, 2009.
- Manchuelle, François. *Willing Migrants: Soninke Labor Diasporas, 1848–1960.* Athens, OH: Ohio University Press, 1997.
- Mann, Greg. *Native Sons: West African Veterans and France in the Twentieth Century.* Durham, NC: Duke University Press, 2006.
- Mann, Kristin, and Richard Roberts, eds. *Law in Colonial Africa.* Portsmouth, NH: Heinemann, 1991.

- Manning, Patrick. *Slavery and African Life: Occidental, Oriental, and African Slave Trades*. Cambridge University Press, 1990.
- Marseille, Jacques. *Empire colonial et capitalisme français: histoire d'un divorce*, new edn. Paris: Albin Michel, 2005.
- McCann, J. C. *Green Land, Brown Land, Black Land: An Environmental History of Africa, 1800–1990*. Portsmouth, NH: Heinemann, 1999.
- McCaskie, T. C. *State and Society in Pre-colonial Asante*. Cambridge University Press, 1995.
- McKittrick, Meredith. *To Dwell Secure: Generation, Christianity, and Colonialism in Ovamboland*. Portsmouth, NH: Heinemann, 2003.
- Miers, Suzanne, and Richard Roberts, eds. *The End of Slavery in Africa*. Madison, WI: University of Wisconsin Press, 1988.
- Nugent, Paul. *Africa Since Independence*. Houndmills: Palgrave Macmillan, 2004.
- Nwokeji, G. Ugo. *The Slave Trade and Culture in the Bight of Biafra: An African Society in the Atlantic World*. Cambridge University Press, 2010.
- Ochonu, Moses. *Colonial Meltdown: Northern Nigeria in the Great Depression*. Athens, OH: Ohio University Press, 2009.
- Osborn, Emily. *Our New Husbands are Here: Households, Gender, and Politics in a West African State from the Slave Trade to Colonial Rule*. Athens, OH: Ohio University Press, 2011.
- Peterson, Derek. *Creative Writing: Translation, Bookkeeping, and the Work of Imagination in Colonial Kenya*. Portsmouth, NH: Heinemann, 2004.
- Posel, Deborah. *The Making of Apartheid, 1948–1961: Conflict and Compromise*. Oxford: Clarendon Press, 1991.
- Priestley, Margaret. *West African Trade and Coast Society: A Family Study*. Oxford University Press, 1969.
- Ranger, Terence. “Nationalist historiography, patriotic history and the history of the nation: the struggle over the past in Zimbabwe.” *Journal of Southern African Studies* 30:2 (2004), 215–234.
- Revolt in Southern Rhodesia, 1896–97: A Study in African Resistance. Evanston, IL: Northwestern University Press, 1967.
- Reid, Richard. *Political Power in Pre-Colonial Buganda*. Oxford University Press, 2002.
- Robinson, David. *The Holy War of Umar Tal: The Western Sudan in the Mid-Nineteenth Century*. Oxford University Press, 1985.
- Paths of Accommodation: Muslim Societies and French Colonial Authorities in Senegal and Mauritania, 1880–1920. Athens, OH: Ohio University Press, 2000.
- Robinson, Ronald, and John Gallagher. *Africa and the Victorians: The Official Mind of Imperialism*. New York: St. Martin's Press, 1961.
- Ross, Robert, Anne Mager, and Bill Nasson, eds. *The Cambridge History of South Africa*, Vol. 2: 1835–1994. Cambridge University Press, 2011.
- Ruedy, John. *Modern Algeria: The Origins and Development of a Nation*, 2nd edn. Bloomington, IN: Indiana University Press, 2005.
- Saada, Emmanuelle. *Empire's Children: Race, Filiation, and Citizenship in the French Colonies*, trans. Arthur Goldhammer. University of Chicago Press, 2012.
- Searing, James F. *West African Slavery and Atlantic Commerce: The Senegal River Valley, 1700–1860*. Cambridge University Press, 1993.
- Seekings, Jeremy, and Nicoli Natrass. *Class, Race, and Inequality in South Africa*. New Haven, CT: Yale University Press, 2005.



- Shepard, Todd. *The Invention of Decolonization: The Algerian War and the Remaking of France*. Ithaca, NY: Cornell University Press, 2006.
- Sheriff, Abdul. *Slaves, Spices, and Ivory in Zanzibar: Integration of an East African Commercial Empire into the World Economy, 1770–1873*. Athens, OH: Ohio University Press, 1987.
- Thénault, Sylvie. *Histoire de la guerre d'indépendance algérienne*. Paris: Flammarion, 2005.
- Thomas, Lynn. *Politics of the Womb: Women, Reproduction, and the State in Kenya*. Berkeley, CA: University of California Press, 2003.
- Tilley, Helen. *Africa as a Living Laboratory: Empire, Development, and the Problem of Scientific Knowledge, 1870–1950*. University of Chicago Press, 2011.
- Trapido, Stanley. "Landlord and tenant in a colonial economy: the Transvaal 1880–1900." *Journal of Southern African Studies* 5:1 (1978), 26–58.
- van Beusekom, Monica. *Negotiating Development: African Farmers and Colonial Experts at the Office du Niger, 1920–1960*. Portsmouth, NH: Heinemann, 2002.
- van Onselen, Charles. *The Seed is Mine: The Life of Kas Maine, a South African Sharecropper, 1894–1985*. New York: Hill & Wang, 1996.
- Vansina, Jan. *Antecedents to Modern Rwanda: The Nyiginya Kingdom*. Oxford University Press, 2004.
- Vaughan, Megan. *Curing Their Ills: Colonial Power and African Illness*. Cambridge: Polity Press, 1991.
- \_\_\_\_\_. *The Story of an African Famine: Gender and Famine in Twentieth-century Malawi*. Cambridge University Press, 1987.
- White, Luise. *Speaking with Vampires: Rumor and History in Colonial Africa*. Berkeley, CA: University of California Press, 2000.
- Wilks, Ivor. *Asante in the Nineteenth Century: The Structure and Evolution of a Political Order*, 2nd edn. Cambridge University Press, 1989.
- Willis, Justin. *Mombasa, the Swahili, and the Making of the Mijikenda*. Oxford: Clarendon Press, 1992.
- Worger, William. *South Africa's City of Diamonds: Mine Workers and Monopoly Capitalism in Kimberley, 1867–1895*. New Haven, CT: Yale University Press, 1987.
- Zewde, Bahru. *A History of Modern Ethiopia, 1855–1991*, 2nd edn. Athens, OH: Ohio University Press, 2001.



## The United States in world history since the 1750s

IAN TYRRELL

Connections to global history were deeply embedded from early times in American experience. In the colonial era to 1776, the North American continent constituted a major theatre for the working out of imperial ambitions between France, Spain and Britain, and the various Amerindian tribes. Ultimately, the United States became the chief beneficiary of that continental struggle and itself became a variety of empire. The size, population and natural resources of the eventual territory that the American republic assumed by 1867 – the date of the Alaska Purchase – became such that it played an important role in world trade, migration and investment patterns. This occurred long before it was even partially integrated as a separate nation state into the European-dominated international state system. Geographically, US relations with the wider world were in the nineteenth century focused more on the North Atlantic, but the Asia-Pacific region was nevertheless an important field for engagement from the earliest stages of the American republic's growth. The breadth of US contacts with other peoples already approached the global.

World history is a broader and more ecumenical concept than 'globalisation', a term that has been criticised for its emphasis on contemporary history, and on unilinear and unidirectional change. Nevertheless, it can be argued that in the nineteenth century, the United States was deeply affected by, and implicated in what might be termed a 'Victorian' or 'imperial' phase of globalisation, reflecting in part the economic influence of the British Empire. Globalisation as used in this chapter is, however, seen as uneven, contingent, reversible and not purely economic in nature. This global entanglement can best be treated as a complex social formation of economic, political and cultural relations. In the nineteenth century the United States was in most respects an open society in which trade, migration and capital

flows integrated the nation into an emerging global economy. Civil society's cross-national involvement in broader currents of social and cultural change was correspondingly strong. Only in politics and diplomacy did the United States largely contradict this trend of integration, with policies of isolationism predominant, and then only in relation to Europe. The late nineteenth and early twentieth centuries saw the United States along with other developed countries strengthen national borders and the institutions of the political state, and relate to other nations and peoples through the projection of power abroad in unilateral imperial contests for trade and resources. The succeeding decades to the middle of the twentieth century saw finely balanced struggles between forces of global integration and decoupling in the global economy and society during two world wars and depression. After the Second World War political and economic relations became more tightly aligned, when the growth of international economic integration resumed, accompanied by an internationalist trend in US politics, diplomacy and military affairs. Finally, in the 1970s, an intensified wave of global integration sometimes called 'new globalisation' deeply affected the economy, society and politics in ways still being worked out in the early twenty-first century.<sup>1</sup>

### Empire and revolution

A major theme in modern world history has been the spread of and conflict among imperial powers. The genesis of the US republic is best seen within this context: the contest of the various European empires for control over North America, the Caribbean and the Atlantic economy. Until the 1750s, the expansion of the Anglo colonies established in the seventeenth and early eighteenth centuries was limited by the French and Indians to the West and Northwest on the mainland of North America and, on the southern borderlands, by Spain as well. In the 1750s, the Seven Years' War (or French and Indian Wars) pitted the

1 A key study of the global context of developments discussed in this chapter is Emily S. Rosenberg, ed., *A World Connecting, 1870–1945* (Cambridge, MA: Belknap Press of Harvard University Press, 2012). For different schemata of globalisation, see A. G. Hopkins, ed., *Globalization in World History* (London: Pimlico Books, 2002); Kevin H. O'Rourke and Jeffrey G. Williamson, *Globalization and History: The Evolution of a Nineteenth-century Atlantic Economy* (Cambridge, MA: MIT Press, 1999); Bruce Mazlish and Ralph Buultjens, eds., *Conceptualizing Global History* (Boulder, CO: Westview Press, 1993); Geoff Eley, 'Historicizing the global, politicizing capital: giving the present a name', *History Workshop Journal* 63:1 (2007), 154–188; Gary B. Magee and Andrew S. Thompson, *Empire and Globalisation: Networks of People, Goods and Capital in the British World, c. 1850–1914* (Cambridge University Press, 2010). For a trenchant critique of globalisation, see Frederick Cooper, 'What is the concept of globalization good for? An African historian's perspective', *African Affairs* 100 (2001), 189–213.

British against the French in what has been seen by many as the first global war, fought in Europe, Asia and North America. The outcome upset the uneasy balance of power that was multilateral, between the French, the British and Indian tribes, some of whom, especially the Iroquois of the Great Lakes region, had been adept in maintaining territorial and economic integrity through manipulating differences between European rivals.<sup>2</sup> No longer were the expansionist ambitions of Anglo-American settlers limited by French–Indian alliances. No longer did the colonists need to rely on the British for adequate defence, but the British government expected them to pay for the security that the war gave them. Therein lay the origins of the financial and ideological conflict over taxation without representation that contributed to the Declaration of Independence and the American War of Independence (1775–1783).

The United States was born in an anti-colonial revolt that helped to spark a series of revolutions in the Atlantic world of 1776–1825, ending with independence of the former Portuguese and Spanish colonies in Latin America. Ideas of natural rights, and opposition to distant authority aired in the American Revolution, affected French debates over the heavily indebted absolute monarchy of Louis XVI. The idea of equality proclaimed in the American Revolution also fuelled calls for an end to the practice of slavery that had become the basis of the American economy in the southern colonies and the Atlantic economy through the slave trade. The idea of egalitarianism could not be easily corralled, and culminated not only in the abolition of slavery in the northern states of the new American union, but also, in reaction to the French Revolution of 1789, inspired the rebellion of free blacks and slaves in the French colony of Saint-Domingue, which produced an ultimately successful resistance against white oppression and the first independent republic born out of a slave colony, Haiti. This Haitian Revolution had reverberations in the new United States, and produced a hardening of attitudes towards slave revolt and resistance in the southern states. It reinforced the legal entrenchment of the slave system already achieved within the constitution of the new American republic a few years earlier, in 1787–1789.<sup>3</sup>

2 Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650–1815* (Cambridge University Press, 1991); Fred Anderson, *Crucible of War: The Seven Years' War and the Fate of Empire in British North America, 1754–1766* (New York: Vintage Books, 2001); James Axtell, *The Invasion Within: The Contest of Cultures in Colonial North America* (Oxford University Press, 1985); Timothy J. Shannon, *Iroquois Diplomacy on the Early American Frontier* (New York: Viking, 2008).

3 David Brion Davis, *Slavery and Human Progress* (Oxford University Press, 1984) and *The Problem of Slavery in the Age of Revolution, 1770–1823* (Ithaca, NY: Cornell University Press, 1975); Laurent Dubois, *Avengers of the New World: The Story of the Haitian Revolution* (Cambridge, MA: Belknap Press of Harvard University Press, 2004); Alfred N. Hunt,

From 1790 to 1815, the safety and prosperity of the American republic was highly dependent on the power struggles that ensued in the wake of the French Revolution. The rivalry between Britain and France drew the United States into conflict with Britain, especially with the rise of Napoleon from 1800 and the Napoleonic Wars that followed. American trade with Europe suffered, exacerbated by British impressment of sailors claiming to be Americans, taken from US ships on the high seas. The war of 1812 saw Britain and the United States fight over this and other issues, with British Canada (Upper Canada and Quebec) as the main battleground.<sup>4</sup> With Spain a declining power as the Spanish colonies revolted against colonial rule, and the British contained by the war's stalemate, the United States could now fully realise its independence. Thereafter, no European power was strong enough to meddle seriously in US affairs, though the British still controlled Canada. No European empire could hold back further American westward expansion achieved at the expense of the Indian tribes. The balance of power on the North American continent had changed decidedly in favour of the Euro-Americans. Backing this increased continental security was the Monroe Doctrine warning against further European political interference in the western hemisphere, yet the 'doctrine' was dependent upon British naval power, and British diplomatic backing. It was as much British policy as American.<sup>5</sup>

### Early national economy

Before 1776, the American colonies had traded extensively with Britain and Europe but, under the mercantilist system that strictly controlled trade, use of British ships and trade via British ports was required. The tobacco industry had powered the development of the eighteenth-century colonial economy, but had simultaneously seen southern planters increasingly indebted to British merchants, and the exhaustion of soils that by the early nineteenth century encouraged a shift to wheat cultivation,

*Haiti's Influence on Antebellum America: Slumbering Volcano in the Caribbean* (Baton Rouge, LA: Louisiana State University Press, 1988); Eugene Genovese, *From Rebellion to Revolution: Afro-American Slave Revolts in the Making of the Modern World* (New York: Vintage, 1979); R. R. Palmer, *Age of the Democratic Revolution*, 2 vols. (Princeton University Press, 1959–1964); Christopher Brown, *Moral Capital: Foundations of British Abolitionism* (Chapel Hill, NC: University of North Carolina Press, 2006).

4 Alan Taylor, *The Civil War of 1812: American Citizens, British Subjects, Irish Rebels, & Indian Allies* (New York: Knopf, 2010).

5 Jay Sexton, *The Monroe Doctrine: Empire and Nation in Nineteenth-century America* (New York: Hill & Wang, 2011).

considered more virtuous and less dependent on either slave labour or foreign capital.<sup>6</sup> Rice was extensively grown in South Carolina (with techniques probably brought by slaves from West Africa) and traded in Europe; and the forests of North America provided sites for the fur industry, as well as timber traded to Britain and used by the British Navy for shipbuilding.<sup>7</sup>

The United States was principally a maritime nation at the onset of this period and its foreign trade was vital to economic development. Apart from trade along the borderlands with Mexico and Canada, this cargo was necessarily carried by ship. Indeed, much trade with Canada was also carried by ship. From the opening of the Erie Canal in 1825, river barges gave the produce of the expanding Midwestern area access to the Atlantic trade via the Great Lakes.<sup>8</sup> All this gave the United States not merely an Atlantic commercial outlook but a global commercial vision, as the United States was, from the 1790s onwards, trading in all oceans and with a wide variety of the world's peoples. In this process, Americans tapped into the existing British imperial routes and profited from their experience and knowledge. This commerce spread from Massachusetts and its famous trading and whaling centres all the way to the South Pacific, India and China.<sup>9</sup> Whale oil from the Pacific whaling fleet's catch was then highly prized as a fuel, and whale meat and whalebone were extensively traded, while the China trade provided tea, silk and porcelain. Opium purchased in Smyrna, ginseng from American forests and, though quickly exhausted, sandalwood and *bêche-de-mer* from Pacific islands went in the other direction.<sup>10</sup>

6 Allan Kulikoff, *Tobacco and Slaves: The Development of Southern Cultures in the Chesapeake, 1680–1800* (Chapel Hill, NC: University of North Carolina Press, 1986).

7 John Brooke, 'Ecology', in Daniel Vickers, ed., *A Companion to Colonial America* (Malden, MA: Wiley-Blackwell, 2006), p. 60; Robert G. Albion, *Forests and Sea Power: The Timber Problems of the Royal Navy, 1652–1862* (Cambridge, MA: Harvard University Press, 1926); Judith A. Carney, *Black Rice: The African Origins of Rice Cultivation in the Americas* (Cambridge, MA, and London: Harvard University Press, 2001).

8 Peter Bernstein, *Wedding of the Waters: The Erie Canal and the Making of a Great Nation* (New York: Norton, 2005).

9 Gordon Greenwood, *Early American–Australian Relations: From the Arrival of the Spaniards in America to the Close of 1830* (Melbourne University Press, 1944); Rosemarie Zagari, 'The significance of the "global turn" for the early American republic: globalization in the age of nation-building', *Journal of the Early Republic* 31 (Spring 2011), 1–37; James R. Fichter, *So Great a Profit: How the East Indies Trade Transformed Anglo-American Capitalism* (Cambridge, MA: Harvard University Press, 2010).

10 Yen-P'ing Hao, 'Chinese teas to America – a synopsis', in Ernest R. May and John K. Fairbank, eds., *America's China Trade in Historical Perspective: The Chinese and American Performance* (Cambridge, MA: Harvard University Press, 1986), p. 22.

Economic development in the United States was inextricably tied to the British industrialisation of the early nineteenth century that drove the nascent global economy. British manufacturing expanded with the rise of the cotton and woollen textile industries, and demanded raw materials that Americans could supply. The growing industrial cities of Britain also required food, and the expansion of American wheat and corn production became important for feeding the industrial populations of Europe. The same was true for clothing them. In the 1790s, the introduction of upland cotton, originally from Mexico (the only type that could be grown outside a narrow coastal belt) allowed southern planters to expand their potential agricultural area enormously when accompanied by federal government removal of the so-called 'five civilized tribes',<sup>11</sup> particularly after 1820, and the growing demand from Europe for cotton gave them the incentives to grow. The invention of the cotton gin in 1793 allowed the upland cotton to be conveniently harvested in a cost-effective manner, while southern slaves provided cheap labour.

From Europe, too, came large supplies of capital after 1815, especially from Britain. The United States benefited from sharing the language and the common law traditions of the British, circumstances that enhanced investment and business opportunities. The existence of English-speaking ties was particularly useful in the early nineteenth century, when Britons were also a major source of migrants, and when they invested in the state enterprises that built canals as the first effective form of transport infrastructure, enabling the produce of the expanding farms of the American West to reach European markets. Later, from the 1850s, railroads began to be important and the British contributed to these extensively from the 1870s. British investors also bought farms and cattle properties in the American West after the Civil War and contributed thereby to western land development.<sup>12</sup>

## Slavery

Though state legislatures passed laws from 1780 to 1804 providing for the abolition of slavery in the northern states, and US participation in the

11 The Cherokee, Seminole, Creek, Choctaw and Chickasaw. See Grant Foreman, *Indian Removal: The Emigration of the Five Civilized Tribes of Indians* (Norman, OK: University of Oklahoma Press, 1932); Francis Paul Prucha, *The Great Father: The United States Government and the American Indians* (Lincoln, NE: University of Nebraska Press, 1984).

12 James Belich, *Replenishing the Earth: The Settler Revolution and the Rise of the Anglo-World, 1783–1939* (Oxford University Press, 2009); Mira Wilkins, *The History of Foreign Investment in the United States to 1914* (Cambridge, MA: Harvard University Press, 1989).

international slave trade ended in 1808, the economy was essentially driven by cotton, and slavery was a key factor in that product's success. The slaves, numbering 1 million in 1810 and reaching nearly 4 million by the eve of the Civil War, were all either imported from Africa or, far more commonly, descended from Africans. Some 600,000 Africans had been imported into what became the United States from 1600 to 1808. (Unknown numbers of Caribbean and African-born slaves, possibly up to 50,000 may have entered illegally after that time.) This importation represented a tiny fraction of the perhaps 10–11 million brought to the Americas as a whole. Southern slavery was able to expand demographically because the sex ratio was relatively equal, allowing *de facto* slave families to be encouraged by planters, and because of the relatively less harsh nature of the agricultural work for cotton and tobacco compared to the case of sugar in the West Indies and Brazil. Diseases afflicting African-American slaves were also less prevalent than in the tropical colonies of the Caribbean. By 1825, 25 per cent of the descendants of slaves shipped from Africa lived in the United States, whereas only 6 per cent of slaves shipped had been sent to what became the United States. However US laws concerning slavery and slave manumission were harsher than in the West Indies and Latin America. The shortage of skilled labour in the latter cases and the absence of substantial migration of white families there meant that incentives needed to be given to slaves to gain skills, and those with skills could bargain over the conditions of their use, and for manumission. Thus North American slavery was paradoxically both more benign and harsher than in the Caribbean, but both Caribbean and North American slavery were harsher than were conditions across much of the African exporting areas. That was because, unlike in Africa, slavery in the Americas was not household slavery, and was not primarily for purposes of conspicuous consumption but for profit. 'New World' slavery was deeply enmeshed in the capitalist market of the Atlantic world for staples such as cotton and sugar.<sup>13</sup>

13 Ira Berlin, *Many Thousands Gone: The First Two Centuries of Slavery in North America* (Cambridge, MA: Belknap Press of Harvard University Press, 1998); Philip D. Curtin, *The African Slave Trade: A Census* (Madison, WI: University of Wisconsin Press, 1969); Stanley L. Engerman and Eugene Genovese, eds., *Race and Slavery in the Western Hemisphere: Quantitative Studies* (Princeton University Press, 1975); Paul Lovejoy, 'The volume of the Atlantic slave trade: a synthesis', *Journal of African History* 23:4 (1982), 473–501; David Eltis, *The Rise of African Slavery in the Americas* (Cambridge University Press, 2000). For global aspects, see Janet J. Ewald, 'Slavery in Africa and the slave trades from Africa', *American Historical Review* 97 (April 1992), 465–485.



## Population/migration

The United States became closely tied to the world economy also in terms of free and indentured labour migration. From 1815 to the 1920s, the nation was linked to a global migration system centred partly upon the export of Europe's surplus population – to North and South America and Australasia. These were lands, sometimes called Neo-Europes, where disease and warfare reduced, eliminated or subjugated the indigenous peoples. From 1815 to 1860, 5 million immigrants, mostly from northwestern Europe, arrived in the United States. Major sources were German, Irish (after 1845) and British. In the 1850s Chinese became significant on the Pacific Coast gold fields, making up 50,000 or 8 per cent of the Californian population by 1870, and there were 100,000 across the United States. These waves of migration were part of distinct Atlantic and Pacific migration patterns. Among a number of factors, population pressures drove the Chinese out of Guandong into indentured labour abroad, while that region's decades-long connections with international trade gave Chinese knowledge of economic opportunities in North America. In Europe, skilled workers affected by mechanisation of industry, and excess rural people unable to make a living on farms, moved to cities, and across oceans. Migration from Ireland in the wake of the potato famine of 1845–1848 was typical of multilateral patterns. The Irish migrated not only directly to the United States, but also indirectly via Canada and Britain. Once in the United States most migrants remained in urban areas, often becoming the unskilled labour force. But Scandinavian migrants, in particular, went into the Midwest and took up farmland.<sup>14</sup> Though the United States took about 65 per cent of all nineteenth-century migrants from Europe, significant percentages of Europe's outpouring went elsewhere, particularly before 1870. Moreover, 'Chinese emigration to America' represented 'only a trickle of the massive Chinese overseas migration'.<sup>15</sup> In either case, the United States was not the only 'distant magnet', but for Europeans it was

14 Adam McKeown, 'Global migration, 1846–1940', *Journal of World History* (June 2004), 5, [www.historycooperative.org/journals/jwh/15.2/mckeown.html](http://www.historycooperative.org/journals/jwh/15.2/mckeown.html), accessed 5 June 2005; Jan Lucassen and Leo Lucassen, eds., *Migration, Migration History, History: Old Paradigms and New Perspectives* (Bern: Peter Lang, 1997); Yong Chen, 'The internal origins of Chinese emigration to California reconsidered', *Western Historical Quarterly* 28 (Winter 1997), 520–546; Maldwyn Jones, *American Immigration* (University of Chicago Press, 1959); Philip A. M. Taylor, *The Distant Magnet: European Emigration to the USA* (New York: Harper & Row, 1971); Adam McKeown, *Chinese Migrant Networks and Cultural Change: Peru, Chicago, Hawaii, 1900–1936* (University of Chicago Press, 2001).

15 Yong Chen, 'Internal origins of Chinese emigration', 530.



the most convenient overseas destination in terms of ease and cost of travel.<sup>16</sup>

After the American Civil War (1861–1865), numbers swelled even more with 32 million arriving by 1924. This migration was mostly from south-eastern Europe and Eastern Europe from 1800 to 1914, and this migration was different in many ways. It was a more mobile workforce, often travelling back and forth across the Atlantic with rates for repatriation ranging from 25 to over 90 per cent by nationality.<sup>17</sup> After 1882, Chinese immigration was almost completely closed off by the Chinese Exclusion Act. Japanese partly replaced the Chinese flow thereafter, until they too were largely excluded in 1908. From the 1890s, immigration restrictionists had tried to stop southern and Eastern European migration as well. Not until 1921–1924, however, was immigration from Europe effectively restricted. Quotas limited immigration by nationality, and with immigration from Asia prohibited, only that from the western hemisphere remained open.<sup>18</sup>

These migration patterns benefited both Europe and the United States. Europe disposed in many instances of surplus agricultural population, and got in return remittances from migrants and cheaper manufacturing goods produced in the United States with immigrant labour. The United States did not have to raise and educate these workers, and migrants tended to be willing and resourceful employees. Immigrants also brought human capital through knowledge and practical skills, and further added to capital inflows through money brought with them. Exchanges in the form of remittances also occurred in the case of China, though migration there was commonly indentured labour.

Rapid population increase was due to not only migration but also the youthfulness of the population in the early nineteenth century. Improved health conditions in infant mortality and high fertility rates in rural areas powered a high birth rate and contributed more to the population growth than immigration. The birth rate was about seven per family in 1800, though falling to six in 1860 to three and a half in 1900. Together,

<sup>16</sup> Taylor, *Distant Magnet*.

<sup>17</sup> Mark Wyman, *Round-Trip to America: The Immigrants Return to Europe, 1880–1930* (Ithaca, NY: Cornell University Press 1993); John Bodnar, *The Transplanted: A History of Immigrants in Urban America* (Bloomington, IN: Indiana University Press, 1985).

<sup>18</sup> Andrew Gyory, *Closing the Gate: Race, Politics, and the Chinese Exclusion Act* (Chapel Hill, NC: University of North Carolina Press, 1998); Erika Lee, *At America's Gates: Chinese Immigration During the Exclusion Era, 1882–1943* (Chapel Hill, NC: University of North Carolina Press, 2004); Mae M. Ngai, *Impossible Subjects: Illegal Aliens and the Making of Modern America* (Princeton University Press, 2004).

immigration and natural increase catapulted the population from 3.9 million in 1790 to 31.4 million by 1860 and to 92.2 million in 1910. Thus the nation quickly exceeded the population of Britain as early as 1860 (Britain's was 8 million in 1790 and 23 million in 1860). This population growth fed speculative land acquisition and building booms in western states, and aided economic growth.<sup>19</sup>

### Continental 'expansion'

The size of the American republic expanded in the 1803 Louisiana Purchase to cover the area between the Mississippi River and the Rocky Mountains. However, the future southwestern states remained as part of Spanish territory (from 1824 the Republic of Mexico, *Los Estados Unidos Mexicanos*) until the Mexican War of 1846. California and the New Mexico territory fell into American hands then, as did Washington and Oregon, as the result of negotiation with the British in the same year. Except for the purchase of Alaska from Russia (1867), the continental limits of the United States were virtually complete. Each of these stages represented deliberate efforts on the part of the US government to acquire, by negotiation or force, the entire central swathe of the North American continent under an 'expansionist' platform known from 1845 as Manifest Destiny.<sup>20</sup>

The process of westward movement after 1800 had pitted rampant white settler society with superior technology against largely shifting agriculture and hunter-gatherer peoples in the East, and horse-empowered hunter-gatherers in the West. This territorial aggrandisement was supposedly different from other empires, but it did resemble the vigorous expansion of the Russian Empire into Siberia and Central Asia in the mid-nineteenth century and after, and Argentinean and Brazilian development in the 1870s and 1880s. In the US case, eastern Indians had been removed, some by force, to west of the Mississippi by the 1830s.<sup>21</sup> Indians were considered outside of political society, which would be based on ownership of plots of land used for farming. Though Indians did farm, especially in the eastern states before

19 Belich, *Replenishing the Earth*; Daniel Scott Smith, 'Family limitation, sexual control, and domestic feminism in Victorian America', *Feminist Studies* 1:3/4, Special Double Issue: Women's History (Winter–Spring, 1973), 40–57.

20 Thomas Hietala, *Manifest Design: American Exceptionalism and Empire* (1985; Ithaca, NY: Cornell University Press, 2003).

21 See e.g. Anthony F. C. Wallace, *Jefferson and the Indians: The Tragic Fate of the First Americans* (Cambridge, MA: Belknap Press of Harvard University Press, 1999).

the 1840s, the form of agriculture was shifting subsistence farming.<sup>22</sup> White settler 'expansion' then came into further conflict with essentially nomadic, bison-hunting Indian tribes on the Great Plains. After the Civil War, the Plains Indian tribes continued to resist such US expansion through the 1880s. Indians had always traded with whites and willingly participated in the Eastern North American depletion of beaver stocks taken for furs on the world market. But, to a considerable extent, the final decline of the Plains Indians' major source of food, the bison, came at the hands of whites, proceeding with such a pace that it almost amounted to a mass extermination of a species. The American army wished to remove the Indians' ability to sustain themselves through hunting, and white hunters unwittingly achieved this aim when they took the bison skins for robes sold back East and in the world market. The bones were used for fertiliser. With the intensification of industrial growth back East, bison leather needed for industrial belts became an important, perhaps the most important, precipitating cause of the near extinction phase of bison hunting in the 1870s and 1880s. From that time almost all remaining Indians were herded onto reservations. In the southwest, Indian tribes had skilfully used the Mexican border to continue to harass American settlers, but they too succumbed by 1886.<sup>23</sup>

This 'settler' growth in the West was not always state directed, but it was state facilitated, and the state through the US cavalry acted to police border conflicts, though not effectively the relations between whites and Indians due to the small size of the American army and the vast territory to be covered.<sup>24</sup> The pattern was one of raiding and skirmishes between nomads and settlers, followed by punitive reprisals by military forces of the state. This pattern was duplicated across the American West from the 1790s to the 1880s. Under the ideas of Thomas Jefferson, this 'expansion' was understood to be an empire of liberty. The assumption was that the territories incorporated and raised to statehood across the expanding US sovereignty would be incorporated in a republic in which the inhabitants were citizens possessed of full rights. This incorporation concluded with the movement of New Mexico and Arizona from territorial status to full statehood in 1912. The American empire was, in

22 William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill & Wang, 1983).

23 Jeffrey Ostler, *The Plains Sioux and U.S. Colonialism from Lewis and Clark to Wounded Knee* (Cambridge University Press, 2004); Pekka Hämmäläinen, *The Comanche Empire* (New Haven, CT: Yale University Press, 2008); Andrew C. Isenberg, *The Destruction of the Bison: An Environmental History, 1750–1920* (Cambridge University Press, 2000), p. 130.

24 Stephen J. Rockwell, *Indian Affairs and the Administrative State in the Nineteenth Century* (Cambridge University Press, 2010).

this sense, claimed to be different from European empires based on subjects rather than citizens. The Indians were, however, not citizens, except in the rare instance where they completely renounced rights to tribal government and land. Even where Indians farmed land, most did not become citizens until the 1924 Indian Citizenship Act.

## Civil War

The expansion of the American West also led to conflict between North and South. Slave-owners wanted fresh lands to develop, and places to sell excess slaves. They favoured movement of slaves West, just as the exponents of free labour in the American North strongly resisted this aspiration. The disputes over the expansion of slavery into the new western territories after the Mexican War's conclusion in 1848 exacerbated tensions over slavery's place in US society, and helped to bring about the Civil War. The war in this sense was closely tied up with European industrial development, because it was the demands of Europe for food and for raw materials for textile production that created the huge demand for farm products through settlement of the West, over which slavery and anti-slavery forces struggled.

The war itself and the consequent abolition of slavery marked a major epoch in the history of the world.<sup>25</sup> Though slavery had already been abolished in the northern states, it was profitable and economically efficient in the South, and deeply entrenched in the constitution. Slavery had been abolished in the British West Indies in 1833 (though slaves had to serve as indentured labour until 1838) and in the French Empire in 1848. However, slavery remained viable in Brazil until 1888 and the Hispanic West Indies (until 1886 in Cuba), and in parts of Africa. The defeat of US slavery in the Civil War was a major blow, tipping the scale between the globally driven demands for cotton and moral and economic objections to the existence of slavery. The Civil War also altered the world economy. It encouraged the development of new sources of cotton, in Egypt and India for Britain and Central Asia for Russia, in the 1860s. Though American cotton continued to be economically important after the Civil War, it did not dominate the world market as before, and the foreign competition helped to undermine the strength of the southern economy, which was forced eventually to seek

25 Richard Carwardine and Jay Sexton, eds., *The Global Lincoln* (Oxford University Press, 2011); Stig Förster and Jorg Nagler, eds., *On the Road to Total War: The American Civil War and the German Wars of Unification, 1861–1871* (Cambridge University Press, 1997).

development of manufacturing through the movement known as the New South (1880s–1910s).<sup>26</sup>

### Environmental change

The westward movement involved great environmental change through forest destruction; conversion of eastern forests for farmland occurred in waves, particularly from the 1750s to 1860. Long before European occupation, indigenous peoples altered the composition of the forests through firestick farming to improve hunting landscapes. But after the 1600s, the removal was more extensive and systemic. Over 90 per cent of the original eastern deciduous forests were gone by 1900 and half of the original forest cover across the entire nation.<sup>27</sup> While many tracts of forest remained, and while others regrew, the level of primeval forest had declined precipitously. From the 1880s, exploitation of forests shifted to the Upper Midwest, the Pacific Coast states and the South. Perhaps 80 per cent of clearing during westward expansion was for agriculture and often burnt rather than harvested. The nature of 'settler' expansion, with its low labour-to-land ratio, encouraged quick conversion of forest to farmland through wasteful practices such as girdling of trees and fires that released nitrogen to soils. But the railroads also consumed immense quantities of wood for railroad ties and even, before the 1860s, as fuel for engine furnaces. Wood that was harvested was often destined for the major cities such as Chicago for use as building materials for construction,<sup>28</sup> but West Coast wood was exported as far afield as Australia and the Philippines. Americans were far from unique in their forest destruction; similar processes were underway in nineteenth-century Canada, Russia and Australia, and, in British India, teak forests were being converted to tea plantations. But US forests, with an advantageous blend of hard and softwoods, and better transportation access through rivers, canals and, after the 1860s, railroads, were ripe for exploitation.

The removal of forests and development of farmland allowed massive energy inputs through burnt forest waste to fertilise farms and raise agricultural products that benefited eastern American and European consumers of

26 Sven Beckert, 'Emancipation and empire: reconstructing the worldwide web of cotton production in the age of the American Civil War', *American Historical Review* 109 (December 2004), 1405–1438.

27 Michael Williams, *Deforesting the Earth: From Prehistory to Global Crisis* (University of Chicago Press, 2003), p. 322.

28 William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: Norton, 1991).

food. The latter process was effectively an export of energy via calorific content to Europe. Like the economy as a whole, agriculture remained based on solar forms of energy, though fertiliser via guano had already been extensively imported to rehabilitate southern cotton and tobacco lands before 1860. The need to obtain so-called guano islands lay behind the US acquisition of certain minor uninhabited Pacific islands in the 1850s, the first US 'expansion' overseas.<sup>29</sup>

The prodigious destruction of forests after the Civil War spurred the first feeble attempts at conservation laws, though little was accomplished until the presidency of Theodore Roosevelt (1901–1909). At that time, Europe was also concerned with conservation and US conservation attitudes and policies developed as part of a Euro-American concern over the loss of natural habitat for wildlife, and loss of natural resources, such as forests, for economic growth. The tension between the two ideas of preservation and conservation for efficiency was conspicuous in the American case.

### Industrialisation

Earlier textile-based industrialisation had started in the northeastern states by the 1820s, often utilising waterpower, and consolidated after the international depression of the late 1830s and early 1840s. But not until 1880 did energy use tip from solar to fossil fuel sources to underpin decisive industrialization. Thereafter, an exponential increase in coal use occurred, mostly from the eastern states of Pennsylvania and West Virginia, supplemented with kerosene for lighting. With cheap coal and iron, the US industrialised across the Midwest and even parts of the South. The factories of the East and Midwest were closely linked by railroads with the mines of the West and the markets of the East, and from there to the world.

The increase in US productive capacity came from the availability of cheap raw materials, plentiful and relatively cheap labour from immigrants, and a capital-intensive production process to maximise profits.<sup>30</sup> Distribution through a national market and specialisation and rationalisation of

29 Dan O'Donnell, 'The Pacific guano islands: the stirring of American empire in the Pacific Ocean', *Pacific Studies* 16 (March 1993), 43–66; Christina Duffy Burnett, 'The edges of empire and the limits of sovereignty: American guano islands', *American Quarterly* 57:3 (2005), 779–803.

30 Gavin Wright, 'The origins of American industrial success, 1879–1940', *American Economic Review* 80:4 (September 1990), 651–668; Edward B. Barbier, *Scarcity and Frontiers: How Economies Have Developed through Natural Resource Exploitation* (Cambridge University Press, 2011), pp. 394–402.

production into larger-scale firms exploited this national market, and put demands on the US government to facilitate the opening of more markets overseas for the enormous surplus, through reciprocal trade diplomacy in the first instance, then financial pressure on regional governments and actual military intervention.<sup>31</sup>

### Global economic power

Long before its global prominence, the United States had become an important factor in world trade. Throughout the nineteenth century, the nation continued to trade extensively with Europe, particularly Britain, while extending its imports from Asia and Latin America. The percentage of goods involved in foreign trade ranged from possibly as much as 15 per cent of production exported at the time of the early republic to 14 per cent of the GNP exports and imports in the late nineteenth century.<sup>32</sup> At that time, the nation 'occupied a share of world trade disproportionately large'. It produced about 16 per cent of the world's exported primary products from 1880 to 1900. It also imported about 9 per cent of primary products generated in global trade. All this was well above the US population level, which stood at 4.7 per cent of the world total in 1900.<sup>33</sup>

Though the United States had important global markets, the size of the American population (reaching 92 million by 1910) meant that it also had an immense domestic market. The adoption of extensive protective tariffs, under the Republican-dominated polity (except for 1913–1921) from 1860 to 1933, did not create but enhanced and exploited the home market, while complicating foreign and trade policies. The home market provided a platform for the economies of scale in production that could allow the exported proportion of American production to be highly competitive when sold on world markets.<sup>34</sup>

31 Alfred Chandler, *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, MA: Harvard University Press, 1977); Walter LaFeber, *The New Empire: An Interpretation of American Expansion, 1860–1898* (Ithaca, NY: Cornell University Press, 1963).

32 J. T. R. Hughes, *American Economic History*, 2nd edn (Glenview, IL: Scott Foresman, 1987), p. 365; Ben J. Wattenberg, ed., *Historical Statistics of the United States: From Colonial Times to the Present* (New York: Basic Books, 1976), p. 887; J. Potter, 'Atlantic economy, 1815–1860: the USA and the Industrial Revolution in Britain', in A. W. Coats and R. M. Robertson, eds., *Essays in American Economic History* (London: Edward Arnold, 1969), pp. 14–48.

33 Hughes, *American Economic History*, pp. 367–368.

34 Benjamin O. Fordham, 'Protectionist empire: trade, tariffs, and United States foreign policy, 1890–1914', unpublished paper, Cornell University, 2011.

Despite, or in some ways because of, the dynamic internal market, US economic growth remained closely linked to that of Europe after the Civil War through capital inflows and migration. Indeed, the nation was integrated into the increasingly synchronised fluctuations of the Atlantic world business cycle, as shown especially in the severe depressions of 1873–1877 and 1893–1896.<sup>35</sup> The United States was also from the 1860s closely connected to the emerging global communications systems, first through the successful laying of an Atlantic cable in 1866. Together with the transcontinental railway line (1869) and the US transcontinental cable of 1861, the Atlantic cable meant that quick and secure communications connected San Francisco to London; by 1872, the extension of the British-built cable services to India, Australia, Hong Kong and Japan efficiently created a global system. This was essential for the movement of gold specie (for settling trade accounts) and market intelligence.

Though increasingly linked to the European and world economies, the power balance within that relationship shifted gradually from the 1880s to 1920. By 1900, the United States was the world's largest economy. Its manufacturing industry was more efficient than those of European competitors, and its products flooded Europe, even stealing traditional British markets for industrial goods in the British Empire. As a result, after 1885–1886, the United States mostly had trade surpluses, and this trade supremacy, based on competitive exports and a highly protected domestic market, produced alarm in some European countries.<sup>36</sup>

Only indebtedness to Europe in interest payments on capital,<sup>37</sup> insurance charges and the costs of a carrying trade conducted in mostly foreign vessels dented the favourable trade position. Once, the United States had possessed a substantial merchant marine carrying 90 per cent of US trade in the early republic. This gradually fell away after 1860 to less than 10 per cent by the First World War. But that war delivered a balance of payments surplus for the United States as well as the trade surplus. Already a net lender in Latin America before the First World War, the nation ceased being a debtor country, and became a creditor to Europe and the world. This economic supremacy spawned future problems for American and global economies.

35 Brinley Thomas, *Migration and Economic Growth: A Study of Great Britain and the Atlantic Economy* (Cambridge University Press, 1954) and *The Industrial Revolution and the Atlantic Economy: Selected Essays* (London: Routledge, 1993); O'Rourke and Williamson, *Globalization*.

36 Fred A. McKenzie, *The American Invaders* (1902; New York: Arno Press, 1976).

37 Mira Wilkins, *The History of Foreign Investment in the United States, 1914–1945* (Cambridge, MA: Harvard University Press, 2004).



There was an obvious imbalance between the productiveness of the American economy and its unwillingness to import reciprocally from Europe due to high tariff barriers.<sup>38</sup>

### Labour and the state

With concerns on both sides of the Atlantic over heightened international economic competition and the flows of workers across boundaries, the development of the state along bureaucratic lines intensified in the Atlantic world. European countries became more wary of allowing their workforce to emigrate. The need for men to fill the expanding armies of Europe reinforced this growing concern with national efficiency and international competition in an expanding European imperialist phase from 1890 to 1914. This trend included greater surveillance of workers and radical agitators, and passport controls were extensively introduced for the first time in a tightening of national borders. The United States was both a responder to this development and a leading participant as Americans became more aware of the social tensions that immigration brought.<sup>39</sup>

At the same time, Americans began to develop a labour movement that ultimately influenced the shape of the state. Until the 1930s, trade unions were mostly restricted to skilled workers, but the United States had experienced extensive class conflict through bitter strikes, lockouts, violence and an increase after 1900 in socialist agitation. The Socialist Party of America was minor compared with its counterparts in Western Europe, but the presence of a working class, blue-collar population as a material force (though not a united class-conscious group), could not be ignored. Middle-class reformers strove to overcome the widening social divide, and from this conjuncture came the 'Progressive Movement', an attempt to apply ideas of social reform, often developed in Europe, for mitigating conditions of work and health. While the regulation of capitalism was part of this trend, US social reform measures to improve workers' lives occurred almost entirely at the level of state rather than federal governments until the 1930s.<sup>40</sup> The United States had not built a strong *central* state, and in this respect its federalist heritage made it distinct from many European countries in the patchwork nature of 'the state'

<sup>38</sup> Fordham, 'Protectionist empire'.

<sup>39</sup> John C. Torpey, *The Invention of the Passport: Surveillance, Citizenship and the State* (Cambridge University Press, 1999).

<sup>40</sup> Daniel T. Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge, MA: Belknap Press of Harvard University Press, 1998).

as a whole.<sup>41</sup> Only with the New Deal and the growth of a national security apparatus after the Second World War did a powerful national state consolidate.

### Formal empire

A key contributor to the growth of the American state was the acquisition of a formal empire. In 1898, the Philippines, Puerto Rico and Guam were gained as a result of the Spanish–American War over Cuban independence. From that time on, the United States became a major power in the Caribbean basin, often intervening militarily or applying financial pressure to the small countries of the region, which became, like Haiti and Cuba until 1934, *de facto* American protectorates. The United States also became a Pacific power, annexing Hawai'i in 1898 and American Samoa in 1899, and the necessity of defending its sprawling reach of Pacific interests was a factor in the decision to support dissidents in the Panama province of Colombia to rebel in 1903. As a result, the United States gained from the Republic of Panama control of the territory on which to build the Panama Canal. From its 1914 opening, this waterway provided access to both oceans for the American fleet, and improved trading possibilities linking the United States and East Asia. After 1917, the United States refrained from acquiring further direct territories overseas, but continued its seaborne empire tradition, enhanced by bases and potential refuelling stations for an expanded navy. The nation also maintained the right to a base on Cuba, all this for protection of the sea lanes for American commerce. These bases presaged the much later American policy of an 'empire of bases' after the Second World War, though the latter had military rather than commercial objectives.<sup>42</sup>

Mostly the United States relied on an informal empire where economic coercion and intimidation were used to maintain investments and access to raw materials in Central America. As early as 1900–1910, American demand

41 On the American state, see Theda Skocpol, *Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States* (Cambridge, MA: Harvard University Press, 1992); Richard Bense, *Yankee Leviathan: The Origins of Central State Authority in America, 1859–1877* (Cambridge University Press, 1990); Stephen Skowronek, *Building a New American State: The Expansion of National Administrative Capacities, 1877–1920* (Cambridge University Press, 1982); Brian Balogh, 'The state of the state among historians', *Social Science History* 27:3 (2003), 455–463.

42 Alfred W. McCoy and Francisco A. Scarano, eds., *Colonial Crucible: Empire in the Making of the Modern American State* (Madison, WI: University of Wisconsin Press, 2009); Chalmers Johnson, *The Sorrows of Empire: Militarism, Secrecy, and the End of the Republic* (New York: Henry Holt, 2004).

for tropical products made such policies desirable, especially for coffee, bananas, other fruit and rubber. By the 1920s, a strong relationship had developed between the mass consumerism of American society of that decade and the 'degradation of the tropical world'.<sup>43</sup> The tropical world's resources were being converted into marketable commodities in ways that changed whole ecosystems and the livelihoods of people deprived of the resources of the land.

### De-globalising tendencies and contradictions, 1920 to 1950s

The involvement of the United States in the First World War made the nation for the first time in a century embroiled in the politics of Europe. Although there was a reaction against this after 1919–1920, with the rejection of the Versailles Treaty and failure to join the League of Nations, the economic integration continued in modified form until 1929, when the nation became deeply affected by the global depression. The United States contributed to the coming of the depression by insisting on repayment of loans to European countries when the latter were owed reparations by the defeated First World War enemy, Germany. When the Great Depression hit, the United States at first adopted economic nationalist and protectionist policies, as did much of Europe, thus accentuating economic decline. The American response to the depression in terms of government spending was not as extensive as some, but, like other nations, the net effect was to strengthen the nation state, with sharp rises in Federal government spending and intervention in the economy and society.<sup>44</sup>

The Great Depression and the Second World War that followed highlighted the uneven trajectory and effects of globalisation. From the 1920s to the 1950s, the US relationship to world history was marked by decreased engagement in terms of key issues of migration, capital flows and trade. The Immigration Act of 1924 was a crucial step in attempting to assert control over US demography. For thirty years thereafter, the population became more white, more native born and, in some measure, more insular. The percentage of US GDP in international trade dropped to a low of 10 per cent

43 Richard Tucker, *Insatiable Appetite: The United States and the Ecological Degradation of the Tropical World* (Berkeley, CA: University of California Press, 2000).

44 Jeffrey A. Frieden, *Global Capitalism: Its Fall and Rise in the Twentieth Century* (New York: Norton, 2006).

by 1930 and stayed there through the 1950s.<sup>45</sup> The depression saw repatriation of many US investments in Europe and disruption to US businesses upon the onset of Nazi power in Germany. Also, growing political isolationism emerged as a response to the looming war clouds, and bore fruit in the Neutrality Acts of 1935–1937 that aimed to keep the United States out of a future European war.

On the other hand, the nation became militarily engaged on a global scale when drawn into the Second World War, as a result of a clash with Japan over that nation's strategic objectives and US interest in preserving the territorial integrity of China. With American military forces fighting in Western Europe (mostly between 1943 and 1945), North Africa (1942) and the Pacific (1941–1945), the political isolationism of the interwar period soon gave way to internationalism and multilateral co-operation under US leadership. The subsequent moves for a United Nations gave substance to this internationalism, as did the General Agreement on Tariffs and Trade (1947). The United States sought through freer trade a stable, capitalist world and, with the onset of a threat to its ambitions from the Soviet Union by 1947, US military and financial aid to Western Europe increased. A significant US presence abroad that accompanied the military victory of the Allies in the Second World War became entrenched, with bases across Western Europe and East Asia; and collective security arrangements were concluded with countries in Europe (NATO); the Middle East (the short-lived CENTO Pact); and Southeast Asia (SEATO). The Korean War (1950–1953) expressed the commitment of the United States to containing communist power in East Asia. US investment grew in Latin America and many other locations, and American cultural impacts on these places expanded, with a corresponding rise of anti-American sentiment.

### Energy and mass consumption

As part of the plan for the reconstruction of Western Europe and Japan, the United States encouraged modernisation of those economies, and investment in technology to promote domestic consumption. This included exporting to many countries in the 1950s the American solution to economic growth, mass consumerism. The system had already made headway in the United States several decades before. From 1914, the automated production system

<sup>45</sup> Ngai, *Impossible Subjects*; Alfred Eckes, Jr and Thomas Zeiler, *Globalization and the American Century* (Cambridge University Press, 2003), p. 109.

pioneered by Henry Ford had brought down the price of industrial goods, and this lay behind the 1920s expansion of the consumer base through acquisition of household items such as electrical goods, and private transportation on a mass scale. In Europe, a beachhead had been established in this period. American companies, especially Ford and General Motors, established branch plants and increased exports to Europe, and American advertising companies, notably J. Walter Thompson, promoted American goods there. But the market was restricted to the upper middle class.<sup>46</sup> After the Second World War, the idea of mass consumerism spread by advertising was increasingly diffused to Europe, the British Empire and Japan.

This mass consumerism was based on cheap energy. The United States ended the Second World War as the consumer of approximately 45–50 per cent of the world's energy. The availability of cheap energy since the 1920s through oil exploration both at home and abroad in Latin America had provided a platform for US economic growth and military superiority in the Second World War. Oil replaced coal for transport via private automobiles and, after the Second World War, for the transport of food and industrial goods. Oil also became important for the manufacture of plastics by the 1960s. A two-fold change in energy occurred as a result. Absolute US consumption grew rapidly as the consumer revolution intensified, but the US percentage of world energy use dropped as the rest of the developed world began to catch up when production recovered from Second World War destruction. By 1973 the percentage of world energy being taken by the United States was down to 37 per cent, and declined further to about 25 per cent by the end of the twentieth century. But with only 5 per cent of the world's population, US energy use remained disproportionately high on a global scale throughout the postwar years.

The absolute increase in the use of energy by the developed world increased pressure on oil reserves. American and foreign oil companies spread their searches to the far corners of the globe to diversify access. American Fordism no longer was able to supply its own needs for its most important source of energy since the 1920s, oil. American imports of oil accompanied increasing interest in the Middle East. Oil had been discovered there earlier but was developed in the 1950s and 1960s, cementing greater US strategic interest in the region at a time when domestic supplies of oil were dwindling. The political implications of US support for dictatorships in the

46 Victoria de Grazia, *Irresistible Empire: America's Advance through Twentieth-century Europe* (Cambridge, MA: Harvard University Press, 2005).

Middle East, notably in Iran (from 1953 to 1979), and US backing for Israel, made the Middle East the most controversial site of American diplomacy and military intervention. The military and political complications of the nation's global reach in the 1960s and 1970s spelt grave economic and resource problems for the United States.

The political economic system that distributed resource inputs and outputs in the 1940s to 1960s was a combination of New Deal federal largesse towards special interests such as farmers and labour and military Keynesianism, through defence spending and space research. Both approaches spurred economic growth. Federal budget deficits, and rearmament after 1947 to fight the Cold War (and the hot war on the Korean peninsula, 1950–1953, and in Vietnam, 1963–1973) aided US economic growth, underpinning prosperity until the end of the 1960s. Externally the Bretton Woods Agreement of 1944 regulated the international monetary system until 1971 and made the dollar the *de facto* reserve currency of the world's financial system. This arrangement supplied relative economic prosperity for two decades under American military and political hegemony.

In the 1970s, however, a systemic economic crisis in world history occurred in which the United States was central.<sup>47</sup> The combination of the reliance on uncertain supplies of foreign oil to fuel economic growth and the inflationary effects of the Vietnam War-era military and social expenditure, combined with cyclical and regional shifts in the global economy as East Asia and Europe expanded. These pressures brought the US economy into an era of stagnation and high inflation as government spending and wage increases now exceeded the capacity of the economy's available goods and services to sustain a 'guns and butter' prosperity. When the international system's postwar settlement broke down as the American economy weakened, the United States joined Britain and other developed countries in moving towards economic and financial deregulation, reducing the power of the state. A quarter-century's respite from stagnation (1984 to 2008) followed, though growth was typically uneven, punctuated with two recessions, and heavily dependent on military Keynesianism and the computer revolution that reorganised the tertiary (white collar) sector of the economy. Meanwhile, blue-collar jobs shrank.

47 Daniel Sargent, 'The United States and globalization in the 1970s', in Niall Ferguson, Charles Maier, Erez Manela and Daniel Sargent, eds., *The Shock of the Global: The 1970s in Perspective* (Cambridge, MA: Belknap Press of Harvard University Press, 2010), chapter 2.

### ‘New globalisation’

The period since the 1970s is called by some observers ‘new globalisation’ to reflect the greater interconnectivity of peoples in which the power of nation states has been compromised afresh by the rise of economic deregulation, freer trade, renewed mass migration from the developing world and the enhanced mobility of capital. The flow of goods and services across national boundaries increased, and US participation in world trade rose. Even though President Ronald Reagan (1981–1989) stressed American nationalism and geopolitical dominance, the American economy became more integrated with the world. Increasingly imports came from East Asia and Latin America as US industrial pre-eminence lessened, and jobs went offshore to take advantage of cheaper labour. Foreign trade rose from 10.8 per cent of GDP in 1970 to 20.5 per cent in 1980 and 26 per cent by 2000.<sup>48</sup>

New globalisation also occurred through the proliferation of transnational non-governmental organisations, to form the embryo of a global civil society, especially in questions of human rights, popular culture and the environment.<sup>49</sup> New communications technologies aided this process through the satellites of the 1960s and 1970s, followed by the World Wide Web that provided the effective successor to the telegraphic cable system.

The Reagan era also saw a reassertion of American authority and vigour in the larger world, as the president worked to combat the influence of the Soviet Union in a renewed Cold War phase. Politically, the nation shored up its leading international role. Militarily the nation increased defence spending, and the collapse of the Soviet Union left the United States as the only remaining superpower from 1991.

But underlying problems remained for the nation’s hegemony: high consumption of and increasing dependence on foreign raw materials for industry joined declining economic competitiveness. From 1971 to 1972 the nation had a persistent balance of trade deficit and a balance of payments current account deficit beginning in 1985–1986. Globalisation certainly benefited the new technologies of the so-called third industrial revolution (the rationalisation of the tertiary sector through computers and other electronic devices), and buoyed economic growth through the 1990s. But simultaneously, economic de-industrialisation of parts of the United States intensified as older, less

48 Eckes and Zeiler, *Globalization and the American Century*, p. 209.

49 Akira Iriye, *Global Community: The Role of International Organizations in the Making of the Contemporary World* (Berkeley, CA: University of California Press, 2002); Mazlish and Buultjens, eds., *Conceptualizing Global History*.

competitive industries such as textiles (North and South Carolina) and steel (Midwest and Mid-Atlantic) wilted in the face of foreign competition. Regional shifts in economic growth gave political supremacy to the South and Southwest, thus illustrating how internal political and regional balances could be affected by new globalisation.<sup>50</sup>

### Single-power hegemon: 1991 and beyond

The collapse of the Soviet Union in 1991 removed the nation's major geopolitical competitor, leaving the United States as the only remaining superpower. Politicians and opinion leaders believed the United States had 'won' the Cold War. At first the concept of an end to history as a struggle for liberty became fashionable through the ideas of Francis Fukuyama; in this reading, liberal democratic civilisation had triumphed leaving only pockets of resistance. The spread of the Internet underlined the idea that commerce had triumphed over ideology and that, with commerce, would come relative peace. The prosperous Clinton years of 1993–2001 were characterised by further integration into the world economy, with the North American Free Trade Agreement (NAFTA) increasing regional transnational trade with Mexico and Canada. The stock market boomed and the American GDP expanded for an unprecedented period. But division and struggle could not be discounted on an international level. Old ethnic rivalries remained unsettled in Eastern Europe and the Middle East, and religious intolerance threatened in many societies. The new world order of globalisation had begun to emerge, but its full implications for the American place in the world did not become clear immediately.

The 11 September 2001 attacks on the World Trade Center by al-Qaeda did not change the world. They merely intensified the processes of global connectivity in which the nation extended its formal 'empire of bases' approach to global hegemony through the acquisition of significant additional military facilities abroad in Central Asia, and prosecuted foreign wars in Iraq and Afghanistan.<sup>51</sup> The American 'empire' remained the world's pre-eminent military power and, indeed, its economic and military role within the world was even more important than before. To be sure, by the end of the first decade of the new millennium, the rise of China challenged that empire. Economic power was shifting, and American power was eroding

50 Steven High, *Industrial Sunset: The Making of North America's Rust Belt, 1969–1984* (University of Toronto Press, 2003).

51 Johnson, *Sorrows of Empire*.



slowly. But the crisis beginning in 2007, with the eddying effects of the subprime lending-induced financial crash, demonstrated how vital the health of the American economy remained for global growth and stability. Events and processes outside the United States continued to affect internal politics and economics, and vice versa. The United States and the rest of the world were interconnected, and disengagement was impossible.

### Further reading

- Beckert, Sven. *Empire of Cotton: A Global History*. New York: Random House, 2014.
- Bender, Thomas. *A Nation Among Nations: America's Place in World History*. New York: Hill & Wang, 2006.
- Bender, Thomas. ed. *Rethinking American History in a Global Age*. Berkeley, CA: University of California Press, 2002.
- Berlin, Ira. *Many Thousands Gone: The First Two Centuries of Slavery in North America*. Cambridge, MA: Belknap Press of Harvard University Press, 1998.
- Cronon, William. *Changes in the Land: Indians, Colonists, and the Ecology of New England*. New York: Hill & Wang, 1983.
- Nature's Metropolis: *Chicago and the Great West*. New York: Norton, 1991.
- Davis, David B. *The Problem of Slavery in the Age of Revolution, 1770–1823*. Ithaca, NY: Cornell University Press, 1975.
- de Grazia, Victoria. *Irresistible Empire: America's Advance through Twentieth-century Europe*. Cambridge, MA: Harvard University Press, 2005.
- Eckes, Alfred, Jr, and Thomas Zeiler. *Globalization and the American Century*. Cambridge University Press, 2003.
- Ellwood, David. *The Shock of America: Europe and the Challenge of the Century*. Oxford University Press, 2012.
- Förster, Stig, and Jorg Nagler, eds. *On the Road to Total War: The American Civil War and the German Wars of Unification, 1861–1871*. Cambridge University Press, 1997.
- Howe, Daniel Walker. *What Hath God Wrought: The Transformation of America, 1815–1848*. Oxford University Press, 2008.
- Iger, David. *The Great Ocean: Pacific Worlds from Captain Cook to the Gold Rush*. Oxford University Press, 2003.
- Johnson, Benjamin H., and Andrew R. Graybill, eds. *Bridging National Borders in North America: Transnational and Comparative Histories*. Durham, NC: Duke University Press, 2010.
- Kennedy, David. *Freedom from Fear: The American People in Depression and War, 1929–1945*. Oxford University Press, 1999.
- Lake, Marilyn, and Henry Reynolds. *Drawing the Global Colour Line: White Men's Countries and the International Challenge of Racial Equality*. Cambridge University Press, 2008.
- Logevall, Fredrik. *Embers of War: The Fall of an Empire and the Making of America's Vietnam*. New York: Random House, 2012.
- McCoy, Alfred W., and Francisco A. Scarano, eds. *Colonial Crucible: Empire in the Making of the Modern American State*. Madison, WI: University of Wisconsin Press, 2009.

- Manela, Erez. *The Wilsonian Moment: Self-Determination and the International Origins of Anticolonial Nationalism*. Oxford University Press, 2007.
- Meinig, D. W. *The Shaping of America: A Geographical Perspective on 500 Years of History*, Vol. 3: *Transcontinental America, 1850–1915*. New Haven, CT: Yale University Press, 2000.
- Ngai, Mae M. *Impossible Subjects: Illegal Aliens and the Making of Modern America*. Princeton University Press, 2004.
- Roberts, Timothy. *Distant Revolutions: 1848 and the Challenge to American Exceptionalism*. Charlottesville, VA: University of Virginia Press, 2009.
- Rodgers, Daniel T. *Atlantic Crossings: Social Politics in a Progressive Age*. Cambridge, MA: Belknap Press of Harvard University Press, 1998.
- Rosenberg, Emily S., ed. *A World Connecting, 1870–1945* (A History of the World, general eds. Akira Iriye and Jorgen Osterhammel). Cambridge, MA: Belknap Press of Harvard University Press, 2012.
- Taylor, Alan. *The Civil War of 1812: American Citizens, British Subjects, Irish Rebels, & Indian Allies*. New York: Knopf, 2010.
- Tucker, Richard. *Insatiable Appetite: The United States and the Ecological Degradation of the Tropical World*. Berkeley, CA: University of California Press, 2000.
- White, Ashli. *Encountering Revolution: Haiti and the Making of the Early Republic*. Baltimore, MD: Johns Hopkins University Press, 2010.
- White, Richard. *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650–1815*. Cambridge University Press, 1991.
- Wilkins, Mira. *The History of Foreign Investment in the United States to 1914*. Cambridge, MA: Harvard University Press, 1989.
- Williams, Michael. *Americans and their Forests: A Historical Geography*. University of Chicago Press, 2003.
- Zolberg, Aristides. *A Nation by Design: Immigration Policy in the Fashioning of America*. Cambridge, MA: Harvard University Press, 2006.

## The economic history of the Pacific

LIONEL FROST

In the three centuries after Vasco da Gama made the first direct voyage from Europe to India in 1499, the value of world trade grew by 1 per cent per annum. This was achieved in spite of political barriers and trading monopolies that stifled trade. After 1800 these restrictions were reduced by falling transport costs, technological change and the use of force – explicit and implied – to open markets. For European trading nations, import demand – domestic demand minus domestic supply – was increased by economic growth, the need for raw materials for industrial production and shifts in income distribution that favoured the importation of ‘exotic’ luxuries. For non-European trading regions, export supply – the level of supply minus domestic demand – was increased by population growth, greater mobility of capital and labour, productivity improvements and the settlement of previously unexploited frontiers. As a result, world trade boomed, growing at 3.7 per cent per annum between 1800 and 1992.<sup>1</sup> The growth in transpacific trade was a key feature of the world economy after the Second World War. In 1965 the value of this trade was 59 per cent of that of transatlantic trade (between Europe and the United States and Asia); by 1985 the figure was 124 per cent.<sup>2</sup> In this essay on the economic history of the Pacific, the focus is on demand and supply shifts and the removal of obstructions to trade in three countries: China, Japan and the USA. The essay is geographically selective, with less attention paid to other regions of the Pacific – the Pacific coast of Latin America, the rest of Asia, Pacific Russia, Canada, Australia and New Zealand – that were affected by forces of economic and political change emanating from the Pacific’s major powers.

1 Kevin H. O’Rourke and Jeffrey G. Williamson, ‘Once more: when did globalisation begin?’, *European Review of Economic History* 8:1 (2004), 112.

2 Kaoru Sugihara, ‘The Second Noel Butlin Lecture: labour-intensive industrialisation in global history’, *Australian Economic History Review* 47:2 (2007), 142.

In 1750, China and Japan's total population was 244 million – almost double that of Europe (140 million) and around 86 per cent of the total population of the Pacific region.<sup>3</sup> The prosperity of the 'High Qing' era was underpinned by imports of silver and new crops such as peanuts, maize and sweet potato from the Americas, the settling of new territories in Manchuria and the Far West, trade with the states bordering the South China Sea, an independent market-oriented peasantry and the skill and energy of the imperial government and its bureaucracy, which levied low taxes and invested in high levels of public goods.<sup>4</sup> Japanese commercial and trading activity, agricultural productivity and levels of nutrition and life expectancy were comparable with that of Europe.<sup>5</sup>

To European traders, these were rich markets that could supply luxuries such as silk, porcelain and tea in exchange for silver and other products. The Portuguese controlled the Southeast Asian trade in pepper and fine spices but their only gateway to the Chinese market was at Macao, on an estuary of the Pearl River sixty-five miles below Canton (Guangzhou), where they obtained rights in 1535 to anchor ships and develop a port. Japan allowed Portuguese traders to operate from Dejima, an artificial island on Nagasaki Bay, in 1569, but expelled them in 1639. Seeking a westward route to the Orient from the silver-rich viceroyalties of New Spain and Peru, Spain founded Manila as an entrepôt in 1571 and realised arbitrage opportunities through transpacific trade – usually only one voyage a year – from Acapulco to silver-starved China. But Spain's vision of acquiring a Macao-like enclave on the coast of China, let alone its grand plan of conquering China itself, came to nothing.<sup>6</sup> In the early seventeenth century the Dutch East India Company turned the

3 Colin McEvedy and Richard Jones, *Atlas of World Population History* (Harmondsworth: Penguin, 1978), pp. 18, 167, 181.

4 William T. Rowe, *Saving the World: Chen Hongmou and Elite Consciousness in Eighteenth-century China* (Stanford University Press, 2001), pp. 1–2; Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton University Press, 2000); R. Bin Wong, *China Transformed: Historical Change and the Limits of European Experience* (Ithaca, NY, and London: Cornell University Press 1997); Jean-Laurent Rosenthal and R. Bin Wong, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, MA: Harvard University Press, 2011); Andre Gunder Frank, *ReORIENT: Global Economy in the Asian Age* (Berkeley, CA, and Los Angeles: University of California Press, 1998); Robert B. Marks, *Tigers, Rice, Silk, and Silt: Environment and Economy in Late Imperial South China* (Cambridge University Press, 1998), pp. 163–176.

5 Susan B. Hanley, *Everyday Things in Premodern Japan: The Hidden Legacy of Material Culture* (London: University of California Press, 1997).

6 Manel Ollé Rodríguez, 'Early Spanish insertion into Southeast Asia: the Chinese factor', in Peter Borschberg, ed., *Iberians in the Singapore-Melaka Area (16th to 18th Century)* (Wiesbaden: Otto Harrassowitz KG, 2004), pp. 23–34.

Muslim trading post at Jakarta into a fortified town (renamed Batavia) and took Malacca. Fort Zeelandia on Taiwan was established as the Dutch base for trade with China. Dutch traders worked from a 'factory' (commissioned warehouse and offices) at Dejima and contact with the Japanese people was highly restricted. England's East India Company operated from factories in enclosed precincts outside the walls of China's ports and was supervised closely by a group of brokers who conveyed the orders of the imperially appointed superintendent of customs. In 1757 the Qing government attempted to reconcile its wariness of foreigners with its need for revenue from the export of tea and increased shipments of silver by making Canton the only official port of entry for Western traders. The existence of a single 'window' port suited foreign traders because it was conducive to predictable customs duties and other fees, and the reliable assembly of cargoes made up of products obtained from hinterland regions by Chinese merchants.<sup>7</sup>

While Europeans enjoyed naval superiority on the high seas, Asian states had the advantage in coastal waters, where flat-bottomed junks and other smaller craft could control access to ports. In the nineteenth century the use of steam-powered riverboats and improved guns gave Europeans the ability to wage war successfully on rivers and shallow coastal waters.<sup>8</sup> The Chinese empire, widely admired by European Enlightenment thinkers as an enlightened form of government and possible model for civilisation, came to be viewed with contempt by an increasingly aggressive West.<sup>9</sup> After the Opium Wars of 1839–1842, Britain forced open five Chinese ports and established a colony at Hong Kong. The arrival of Commodore Matthew Perry's four 'Black Ships' in Edo Bay in 1853 secured a treaty that allowed the United States free access to two Japanese ports.

Whiggish scholars celebrated the spread of 'civilisation' to the non-European world and revisionists decried the violence and ecological devastation of European imperialism. These schools share a Eurocentric perspective

7 Leonard Blussé, *Visible Cities: Canton, Nagasaki, and Batavia and the Coming of the Americans* (Cambridge, MA: Harvard University Press, 2008); John L. Cranmer-Byng and John E. Wills, Jr., 'Trade and diplomacy with maritime Europe, 1644–c. 1800', in John E. Wills, ed., *China and Maritime Europe, 1500–1800: Trade, Settlement, Diplomacy, and Missions* (Cambridge University Press, 2010); Paul A. Van Dyke, *Merchants of Canton and Macao: Politics and Strategies in Eighteenth-century Chinese Trade* (Hong Kong University Press, 2011).

8 Daniel R. Headrick, *Power Over Peoples: Technology, Environments, and Western Imperialism, 1400 to the Present* (Princeton University Press, 2010), p. 88.

9 Ashley Eva Miller, 'Revisiting the Sinophilia/Sinophobia dichotomy in the European Enlightenment through Adam Smith's "duties of government"', *Asian Journal of Social Science* 38:5 (2010), 716–737.

based on models of colonisation 'which assume that the technological inferiority, economic backwardness, and political conservatism of oriental cultures spelled their inevitable defeat by European colonisers'.<sup>10</sup> This posits Europe as the privileged 'Inside' from which innovation was diffused to the non-European 'Outside'.<sup>11</sup> In fact, Asian traders, navigators, pirates, investors and merchant-princes remained effective competitors with their European counterparts for longer than earlier scholars thought. Asian patterns of production, trade and governance shaped economic change in ways that cannot be understood through an analytic separation of European intrusion and Asian response.<sup>12</sup> The increased presence of foreigners in Asia and the new technology they brought are most appropriately seen as exogenous factors that provoked a diversity of responses, due to the influence of locally specific traditions and institutional frameworks of governance (Map 23.1).

### Americans and the Pacific

After Captain James Cook 'discovered' Hawai'i and explored the North American coast as far as the Bering Strait in the 1770s, independent British and American whalers and hunters of seals and sea otters converged on isolated communities, disrupting traditional trading patterns and transmitting deadly epidemic diseases. Until the Louisiana Purchase (1803) much of the territory west of the Mississippi was in French hands. New Spain and later Mexico extended west of the Continental Divide. Almost a thousand vessels stopped in New Spain's Alta California between 1786 and 1848 and most of them continued on to Nootka Sound or Sitka, where valuable sea otter furs could be bought cheaply, or Hawai'i, which became the centre for American whaling and trade in the Pacific world. Before the United States gained Pacific shores under the Oregon Treaty of 1846 the American Far West was part of an internationalised free trade waterscape.<sup>13</sup>

Americans at first tended to see East Asia through European eyes – lying at 'the eastern extremity of the globe' as a Boston merchant put it.<sup>14</sup> Before

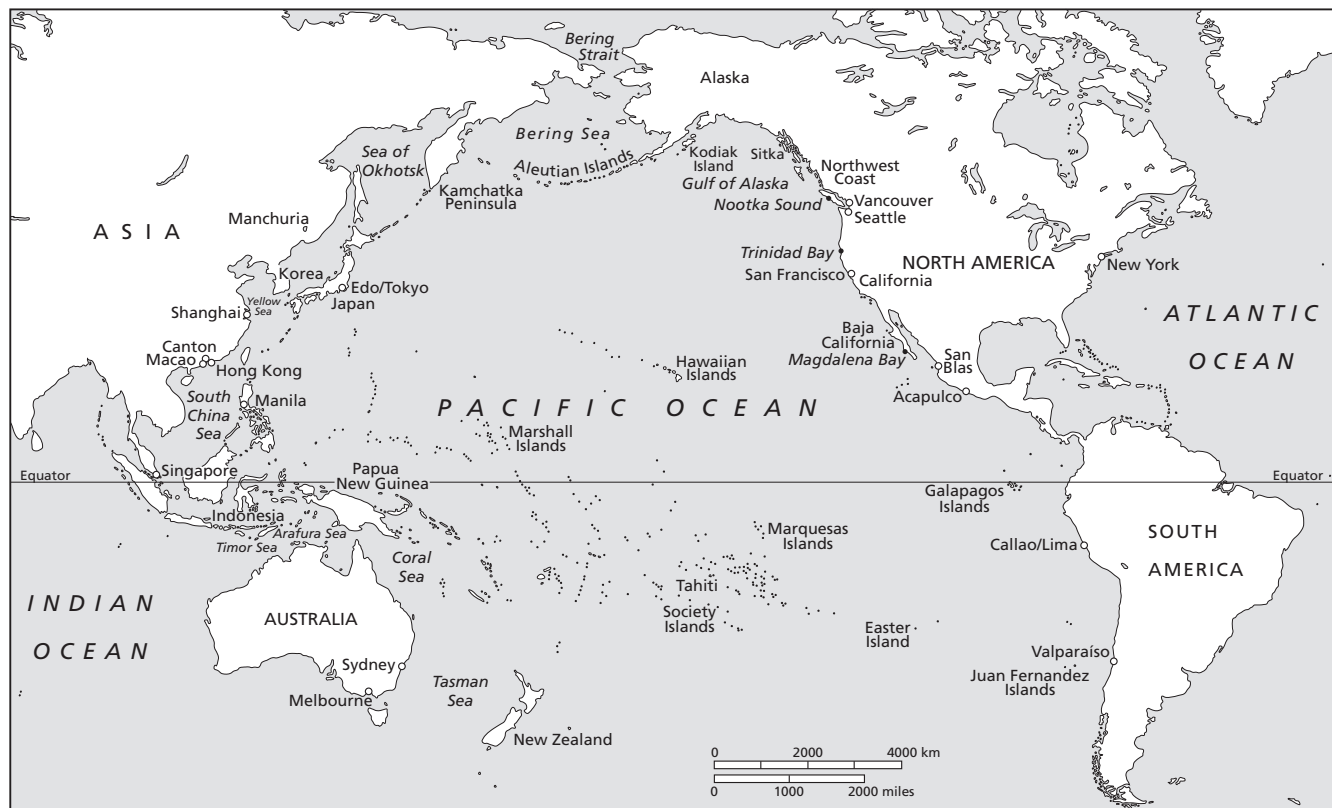
10 Robert Markley, 'Riches, power, trade and religion: the Far East and the English imagination, 1600–1720', *Renaissance Studies* 17:3 (2003), 494.

11 J. M. Blaut, *The Colonizer's Model of the World: Geographical Diffusionism and Eurocentric History* (New York: Guilford Press, 1993).

12 John E. Wills, Jr, 'Maritime Asia, 1500–1800: the interactive emergence of European domination', *American Historical Review* 98:1 (1993), 83–105.

13 David Igler, *The Great Ocean: Pacific Worlds from Captain Cook to the Gold Rush* (Oxford University Press, 2013).

14 John Curtis Perry, *Facing West: Americans and the Opening of the Pacific* (Westport, CT: Praeger, 1994), p. 47.



Map 23.1 The Pacific Rim

independence, Americans were bound by the Navigation Acts, under which ships could only arrive and depart from British ports if they were British-owned and manned. The first US ship to sail to China, a decommissioned Revolutionary War vessel that had been renamed the *Empress of China*, left New York in 1784. The fifteen-month round trip carrying silver, ginseng, lead and other products to Canton via the Cape of Good Hope was a risky venture but one that generated high returns when the ship returned fully laden with tea, porcelain and silk.<sup>15</sup> After this success, American merchants dealt with China on an increasing scale, commercially hunting and harvesting sea otter pelts, sandalwood and *bêche-de-mer* (sea cucumbers) and assembling cargoes in Hawai'i for shipment to Canton.<sup>16</sup> Lower shipping costs allowed American merchants to undercut their British rivals, who exported Bengali opium to balance its trade with China. In 1839 Lin Zexu, the imperially appointed maritime commissioner in Canton, acted to end trafficking by ordering the surrender of 1,500 tons of opium and destroying it by mixing it with salt and lime in large water-filled trenches.<sup>17</sup> With the *Nemesis*, a flat-bottomed steamboat with superior guns that could sail up the Yangtze River, the British seized control of the Grand Canal and imposed a free trade treaty on China. The increasing presence of American shipping in the northern Pacific prompted Commodore Perry to envisage Japan as a stopping place on 'a highway for the world', running across the United States to California, then to Hawai'i and Shanghai.<sup>18</sup>

The period between the opening of Chinese treaty ports to American merchants in 1844 and the completion of the first transcontinental railroad in 1869 saw the United States at its historic peak as a commercial maritime power. Gold had been discovered in January 1848, just over a week before the peace treaty under which the United States acquired the territory from Mexico was signed. The news that 'the earth was spitting up cash' was kept a secret until May and most Americans did not learn of the Californian gold strikes until November.<sup>19</sup> By that time, people from across the Pacific were already at work in the fields. A schooner from San Francisco had relayed the

15 John W. Swift, P. Hodgkinson and Samuel W. Woodhouse, 'The voyage of the *Empress of China*', *Pennsylvania Magazine of History and Biography* 63:1 (1939), 24–26.

16 J. R. McNeill, 'Of rats and men: a synoptic environmental history of the island Pacific', *Journal of World History* 5:2 (1994), 299–349.

17 Maurice Collis, *Foreign Mud: Being an Account of the Opium Imbroglia at Canton in the 1830s and the Anglo-Chinese War that Followed* (New York: New Directions Books, 1946).

18 Perry, *Facing West*, pp. 59–60.

19 T. J. Stiles, *The First Tycoon: The Epic Life of Cornelius Vanderbilt* (New York: Alfred A. Knopf, 2009), p. 171; H. W. Brands, *The Age of Gold: The California Gold Rush and the New American Dream* (New York: Doubleday, 2002), pp. 45–47.



news to Honolulu and from there word was spread to ports throughout the Pacific. New York was 16,000 nautical miles from the Golden Gate; Acapulco, Callao, Valparaíso, Honolulu, Canton and Sydney were all less than half that distance away. The fastest sailing ship from Sydney could reach San Francisco in ten weeks; the route from eastern America around the Cape of Good Hope could take up to five months.<sup>20</sup> By taking a steamer from New York to Panama, a dugout canoe up the Chagres River, a mule train across the mountains, and then a steamer from Panama City, a person could reach San Francisco in around seven weeks. This was a more expensive route and the risk of contracting tropical diseases was high. An estimated 75,000 people arrived in San Francisco by one of the sea routes and over 100,000 made the gruelling journey overland.<sup>21</sup> In 1850 work started on a railroad across Panama, financed by an American shipping magnate. The railroad was only forty-seven miles long and took five years to build, but proved to be highly profitable. Diggers who returned after trying their luck on the Californian goldfields accelerated the search for gold in Australia, the discovery of which in 1851 turned Melbourne into the world's fastest growing city.<sup>22</sup> American clipper ships with wide sails were built to meet the demand for fast travel to Australia. When the winds were favourable, ships that had carried gold seekers to Melbourne could sail quickly to China and return with more immigrants and cargoes of tea.<sup>23</sup> Around 25,000 Chinese, mostly from the Pearl River delta region, were in California by 1852 and roughly the same number was at work on the Victorian goldfields in 1857. Chinese companies based in California, and later Chinese and Japanese ones operating in Seattle and Vancouver, drew on language skills and transpacific networks to recruit labour to lay tracks for the United States and Canadian transcontinental railroads. Asian merchants based in North America facilitated access to Chinese and Japanese markets, and Chinese immigrants in both California and Australia provided valuable agricultural labour.<sup>24</sup> In 1881 gold was found in Alaska, territory that the United States purchased from Russia in 1867.

20 Geoffrey Blainey, *The Tyranny of Distance: How Distance Shaped Australia's History* (Melbourne: Macmillan, 1966), p. 140.

21 Karen Clay and Randall Jones, 'Migrating to riches? Evidence from the California gold rush', *Journal of Economic History* 68:4 (2008), 999–1000.

22 Geoffrey Blainey, 'A theory of mineral discovery: Australia in the nineteenth century', *Economic History Review* 23:2 (1970), 289–313; Graeme Davison, 'Gold-rush Melbourne', in Iain McCalman, Alexander Cook and Andrew Reeves, eds., *Gold: Forgotten Histories and Lost Objects of Australia* (Cambridge University Press, 2001), pp. 52–66.

23 Blainey, *The Tyranny of Distance*, pp. 174–205.

24 Kornel S. Chang, *Pacific Connections: The Making of the U.S.–Canadian Borderlands* (Berkeley, CA, and Los Angeles: University of California Press, 2012); David

Despite America's burgeoning wealth, Britain maintained a position of leadership in the world economy throughout the century preceding the First World War. After the Napoleonic Wars, which had destabilised world trade and slowed the growth of the British economy by crowding out private capital formation, Britain was free to seek new markets and sources of raw materials.<sup>25</sup> By the 1840s British steamships served Valparaíso and Callao, where British merchants played a central role in the export of wheat, copper and guano.<sup>26</sup> Between 1850 and 1869 Britain resumed its position as the world's leading shipbuilding nation through innovations in steamship design – the screw propeller replaced the paddle wheel, iron plating was used instead of wood and compound engines cut coal consumption. American shippers clung to sail and wood. Until the completion of the Suez Canal in 1869 Britain's trade with China was handled by sailing ships because steamships could not carry enough coal to make the trip. Within a decade British steamers using the Canal had forced American clippers out of the China tea trade.<sup>27</sup> International freight rates fell by around 1.5 per cent per annum between 1840 and 1913 and price mark-ups in European markets for commodities from Asia were reduced by the development of alternative sources of supply.<sup>28</sup> Telegraph cables connected China's coastal cities and provided fast information about price differentials that triggered trade and capital flows. The founding of Singapore by Sir Thomas Stamford Raffles as a trading station in 1819 and the colonization of the Falkland Islands, near Cape Horn in 1833, gave Britain effective control of access to the Pacific.

Californian and Australian gold increased the amount of money in circulation and allowed overseas countries to pay for British products. British investors then pumped funds back into the world economy through government bonds and railway building in new primary producing regions. Stable property rights, the rule of law and democracy, and falling migration costs

Haward Bain, *Empire Express: Building the First Transcontinental Railroad* (New York: Penguin, 1999), pp. 205–208; Yong Chen, *Chinese San Francisco 1850–1943: A Trans-Pacific Community* (Stanford University Press, 2000), p. 52.

25 Jeffrey G. Williamson, 'Why was British growth so slow during the Industrial Revolution?', *Journal of Economic History* 44:3 (1984), 687–712.

26 W. M. Mathew, 'Peru and the British guano market, 1840–1870', *Economic History Review* 23:1 (1970), 112–128.

27 Max E. Fletcher, 'The Suez Canal and world shipping, 1869–1914', *Journal of Economic History* 18:4 (1958), 561.

28 Kevin H. O'Rourke and Jeffrey G. Williamson, *Globalization and History: The Evolution of a Nineteenth-century Atlantic Economy* (Cambridge, MA: MIT Press, 1999), pp. 35–36; Jan de Vries, 'The limits of globalization in the early modern world', *Economic History Review* 63:3 (2010), 728–729.

increased the flow of free settlers to these regions.<sup>29</sup> San Francisco, Melbourne and other cities grew by processing and trans-shipping rural produce, while investing in railways and the development of primary industries in their hinterlands.<sup>30</sup> Profitable farming depended on innovative environmental reforms and management that increased the supply of meat, dairy products and fruit for external markets. Through trial and error, small farmers and large firms responded to environmental challenges and new technical information was diffused in a transpacific exchange through newspapers and agricultural societies.<sup>31</sup> This resource bounty created new production possibilities for Western economies, allowing Britain and America to shift resources from agriculture to the manufacturing sector.

### *Treaty ports and Asian economic development*

The Treaty of Nanking (1842) was an expression of Britain's willingness to use force to protect the rights of merchants to trade freely in China. Hong Kong became a British colony and rights to trade were granted in five ports – Canton, Amoy, Shanghai, Ningpo and Foochow – with changes to tariff rates requiring British assent. Treaties that extended these concessions to the United States and France were signed in 1844. As a funnel for the trade of the Yangzi valley, Shanghai quickly became the major centre for overseas trade and British merchants continued to sell opium to finance the growing trade in tea and silk. During the Second Opium War (1856–1860) British and French troops bombarded and occupied Canton and later marched on Peking (Beijing), looting and burning the emperors' Summer Palace. Under the treaties that followed, more ports were opened to British, French and American merchants and Russia obtained territory where it built a Pacific port at Vladivostok.<sup>32</sup> After the arrival of Perry the government officials who

29 Timothy J. Hatton and Jeffrey G. Williamson, *Global Migration and the World Economy: Two Centuries of Policy and Performance* (Cambridge, MA: MIT Press, 2005).

30 Lionel Frost, "'Metallic nerves': San Francisco and its hinterland during and after the Gold Rush", *Australian Economic History Review* 50:2 (2010), 129–147.

31 Ian Tyrrell, *True Gardens of the Gods: Californian–Australian Environmental Reform, 1860–1930* (Berkeley, CA and Los Angeles: University of California Press, 1999); Lionel Frost, 'The Correll family and technological change in Australian agriculture', *Agricultural History* 75:2 (2001), 217–241; Douglas Sackman, *Orange Empire: California and the Fruits of Eden* (Berkeley, CA and Los Angeles: University of California Press, 2005); David Igler, *Industrial Cowboys: Miller & Lux and the Transformation of the Far West, 1850–1920* (Berkeley, CA and Los Angeles: University of California Press, 2001); Steven Stoll, *The Fruits of Natural Advantage: Making the Industrial Countryside in California* (Berkeley, CA and Los Angeles: University of California Press, 1998).

32 John J. Stephan, *The Russian Far East: A History* (Stanford University Press, 1994).

argued that Japan was in no position to resist the West prevailed. Between 1858 and 1869 Japan signed 'unequal treaties' with most European powers that established open ports at Yokohama, Nagasaki, Hakodate, Osaka and Kobe. The French began their conquest of Indochina in 1858, Britain gradually consolidated its administration of Malay states from 1874 to 1895 and the Dutch increased their control over Java and set up colonies in Sumatra, Borneo and the Moluccas. Siam (Thailand) remained under indigenous administration but a treaty with Britain signed in 1855 obliged the government to open the country to Western imports.

In the treaty ports foreigners were subject solely to the jurisdiction of their own consul. They lived in 'foreign settlements' or 'concessions' – small European-style towns that were adjacent to but separate from the established city – which offered protection for Westerners and limited their cultural impact on the local population.<sup>33</sup> While foreigners were convinced of their own superiority, they and the merchants who did business with them were subject to violence from the native population. 'Every merchant in Japan is aware that a sword is hanging over him', an observer noted in 1863. In 1870 a Tianjin mob killed twenty-one foreigners. Hundreds of foreigners in northern China were killed in the Boxer Rebellion (1900).<sup>34</sup> Japan resisted further Western demands for market access and sought to end the 'unequal treaties' through a 'Rich Nation, Strong Army' approach to economic development. Similarly, China's 'self-strengthening' movement of the 1870s and 1880s – a set of reforms to develop military capacity in response to the Western powers – carried the slogan 'Enrich the State and Strengthen the Military'.<sup>35</sup> In Southeast Asia, there was little if any difference in the economic structure and ethnic composition of the major commercial cities. In independent Bangkok and colonial Saigon, the finance, processing and transport of indigenous commodity production was the preserve of immigrant Asian communities.

33 Marie-Claire Bergère, *Shanghai: China's Gateway to Modernity* (Stanford University Press, 2009), pp. 32–36; Linda C. Johnson, *Shanghai: From Market Town to Treaty Port, 1074–1858* (Stanford University Press, 1995), pp. 320–321.

34 J. E. Hoare, *Japan's Treaty Ports and Foreign Settlements: The Uninvited Guests 1858–1899* (Folkestone: Japan Library, 1994), p. 10; J. K. Fairbank, 'Patterns behind the Tientsin massacre', *Harvard Journal of Asiatic Studies* 20:3/4 (1957), 480–511; John E. Schrecker, *The Chinese Revolution in Historical Perspective*, 2nd edn (Westport, CT: Praeger, 2004), pp. 162–163.

35 Kozo Yamamura, 'Success illgotten? The role of Meiji militarism in Japan's technological progress', *Journal of Economic History* 37:1 (1977), 113–135; Richard J. Samuels, 'Rich Nation, Strong Army': *National Security and the Technological Transformation of Japan* (Ithaca, NY: Cornell University Press, 1994); Schrecker, *The Chinese Revolution*, p. 143.

The major commercial institutions – banks, shipping offices and merchant houses – were controlled by Europeans.<sup>36</sup>

Before Perry's ships arrived in Edo in 1853, Japan's central government (the *Bakufu*) had installed cannons and a system of coastal watch towers and forts in preparation for an invasion of foreign ships.<sup>37</sup> Regional specialisation and coastal shipping underpinned Japanese living standards, but the Tokugawa did not allow foreign travel and pursued a policy of nearly complete isolation. In 1868 a group of samurai destroyed the rigid Tokugawa class system and restored a young emperor as the nominal ruler. A policy of free trade and borrowing from the West was pursued, with Japan's comparative advantage based on traditional rural activities where increasing units of skilled labour were applied to a fixed supply of land. Most of Japan's industrialisation took place in modernised cottage industries that were generally located in rural areas where infrastructure costs were low and human and social capital had accumulated. Here labour was not simply cheap, but cheap relative to its efficiency.<sup>38</sup> Other Asian markets took increasing quantities of Japanese-manufactured consumer goods in exchange for agricultural products. During the Meiji period, Japan's terms of trade improved by a factor of six or more due to rising export prices for silk and tea and decreases in the relative price of imported cotton cloth and yarn and iron products.<sup>39</sup>

This industrialisation was based on both private and public sector activity. Openness allowed Japan to benefit from the products of the Industrial Revolution, such as steam engines and advances in mechanical engineering, which could be adapted and applied in ways that made best use of Japan's labour cost structure. The capital-intensity of European and American machinery was reduced by Japanese adjustments such as the replacement of steel with wood in power loom frames. As incomes rose,

36 Ian Brown, *The Élite and the Economy in Siam, c. 1890–1920* (Oxford University Press, 1988); Porphant Ouyyanont, 'Underdevelopment and industrialisation in pre-war Thailand', *Australian Economic History Review* 52:1 (2012), 43–60.

37 Robert G. Flershem, 'Some aspects of Japan sea shipping and trade in the Tokugawa period, 1603–1867', *Proceedings of the American Philosophical Society* 110:3 (1966), 182–226.

38 Sugihara, 'The second Noel Butlin lecture', 130–135; J. I. Nakamura, 'Human capital accumulation in premodern rural Japan', *Journal of Economic History* 41:2 (1981), 263–281.

39 J. Richard Huber, 'Effects on prices of Japan's entry into world commerce after 1858', *Journal of Political Economy* 79:3 (1971), 614–628; Daniel M. Bernhofen and John C. Brown, 'An empirical assessment of the comparative advantage gains from trade: evidence from Japan', *American Economic Review* 95:1 (2005), 208–225; Yasukichi Yasuba, 'Did Japan ever suffer from a shortage of natural resources before World War II?', *Journal of Economic History* 56:3 (1996), 544–545; Jeffrey G. Williamson, *Trade and Poverty: When the Third World Fell Behind* (Cambridge, MA: MIT Press, 2011), p. 47.

patterns of consumption based on housework activities changed, creating new demand for food-processing and cooking products, and sewing and dress-making equipment.<sup>40</sup> In industries such as shipping and merchandising, *zaibatsu* – large family-owned conglomerates – reaped economies of scale that allowed diversification and investment in new technology.<sup>41</sup> The Meiji government's Ministry of Public Works, established in 1870 and headed by a Scottish engineer, was in charge of all fields of engineering through direct investment in railways, lighthouses, dockyards, harbour construction and shipyards.<sup>42</sup> From the early 1880s, the military pursued a goal of 'weapons independence' that led to the creation and expansion of publicly funded arsenals, shipyards and factories that acted as centres for the absorption of Western technologies and skills. These boosted demand for the products of private firms in the shipbuilding, machinery and machine-tool industries. At least until 1894, Meiji economic success was not so much a product of heavy public spending, but rather due to strategic investment in public goods such as education and infrastructure while letting 'the private sector develop on its own initiative'.<sup>43</sup>

In China, as in Japan, trade became a more important component of the economy in the late nineteenth century. In both countries, exports made up less than 1 per cent of GDP in 1870, less than any other Asian or Latin American country. By 1913, China's export share grew by a factor of 2.6, higher than the Asian or Latin American average. This performance is modest only in comparison to that of Japan, where the export share grew by a factor of 8.3.<sup>44</sup> Thus while inland weaving centres developed in North China, where imported cotton yarn was woven by female workers on traditional looms, their growth was not as rapid or extensive as that of similar enterprises in Japan.<sup>45</sup> Both countries found it difficult to raise

40 Masayuki Tanimoto, 'The role of housework in everyday life: another aspect of consumption in modern Japan', in Penelope Francks and Janet Hunter, eds., *The Historical Consumer: Consumption and Everyday Life in Japan, 1850–2000* (Basingstoke: Palgrave Macmillan, 2012), pp. 27–55.

41 John P. Tang, 'Technological leadership and late development: evidence from Meiji Japan, 1868–1912', *Economic History Review* 64 (2011), 99–116.

42 Masami Kita, 'The Japanese acquisition of maritime technology from the United Kingdom', in A. J. H. Latham and Heita Kawakatsu, eds., *Intra-Asian Trade and the World Market* (London and New York: Routledge, 2006), pp. 46–74.

43 Yasuba, 'Did Japan ever suffer from a shortage', 549.

44 Williamson, *Trade and Poverty*, p. 47.

45 Linda Grove, 'International trade and the creation of domestic marketing networks in North China, 1860–1930', in Shinya Sugiyama and Linda Grove, eds., *Commercial Networks in Modern Asia* (London: Curzon Press, 2001), pp. 96–115.

agricultural productivity in the face of population growth. Between 1750 and 1850, as China's population rose from around 215 million to 380 million, people seeking land moved up hillsides or close to flood-prone reclaimed lakes, or migrated to Taiwan.<sup>46</sup> Qing spending on flood control on the Yellow River was cut back and deaths from famine, floods and other natural disasters totalled 17 million between 1840 and 1911, with 90 per cent of these occurring after 1875.<sup>47</sup> Perhaps 25 million people died and the Yangzi valley was devastated during the Taiping Rebellion. Suzhou and Hankow, both with an estimated 1 million inhabitants, were razed.<sup>48</sup> After the Sino-Japanese War (1894–1895) Taiwan was ceded and new concessions allowed Germans, Belgians and other foreigners to invest in railways and mines deep into the treaty port hinterlands.<sup>49</sup> Elite and popular dissent coalesced and the Qing dynasty collapsed after provincial governments declared their independence in 1911. Japan was the only non-Western colonial power in the era of modern imperialism seizing neighbouring territories to create strategic zones that would provide cheap food and create markets for Japanese exports.<sup>50</sup> As Mark Peattie observes, domestic reform created a template for Japanese 'dreams of transforming decaying and corrupted Asian civilizations'. Inherent in Japan's creation of 'cordons of advantage' radiating from the home islands was the need to occupy territories and preserve sovereignty through control of further distant buffer zones. 'Thus, in its quest for security, the empire became involved in a series of strategic "problems" that were to torment Japan's domestic politics and imperil its foreign relations.'<sup>51</sup>

46 McEvedy and Jones, *Atlas of World Population History*, p. 170; G. William Skinner, 'Sichuan's population in the nineteenth century: lessons from disaggregated data', *Late Imperial China* 8:1 (1987), 75.

47 Kenneth Pomeranz, 'Chinese development in long-run perspective', *Proceedings of the American Philosophical Society* 152:1 (2008), 91.

48 Peter J. Carroll, *Between Heaven and Modernity: Reconstructing Suzhou, 1895–1937* (Stanford University Press, 2006), p. 4; William T. Rowe, *Hankow: Commerce and Society in a Chinese City, 1796–1889* (Stanford University Press, 1984), pp. 38–42.

49 John E. Schrecker, *Imperialism and Chinese Nationalism: Germany in Shantung* (Cambridge, MA: Harvard University Press, 1971), pp. 220–225.

50 Samuel Pao-San Ho, 'Colonialism and development: Korea, Taiwan, and Kwantung', in Ramon H. Myers and Mark R. Peattie, eds., *The Japanese Colonial Empire, 1895–1945* (Princeton University Press, 1984), pp. 347–358; Chih-ming Ka, *Japanese Colonialism in Taiwan: Land Tenure, Development, and Dependency, 1895–1945* (Boulder, CO: Westview Press, 1995); Mitsuhiko Kimura, 'The economics of Japanese imperialism in Korea, 1910–1939', *Economic History Review* 48:3 (1995), 555–574.

51 Mark R. Peattie, 'The Japanese colonial empire, 1895–1945', in Peter Duus, ed., *The Cambridge History of Japan*, Vol. 6: *The Twentieth Century* (Cambridge University Press, 1988), pp. 220–221.



*The Pacific War and its aftermath*

Japan's annexation of the Korean peninsula in 1910, having removed the Chinese and Russian presence there in the wars of 1894–1895 and 1904, gave rise to debate about expansion into China. While moderates favoured expansion through investment and trade in co-operation with Britain and America, 'at the other end were the expansionists and militarists, who were prepared to go to war if necessary to suppress Chinese nationalism and resistance and drive England and America off the Asian continent'.<sup>52</sup> To the expansionists, population pressure and shortages of domestic raw materials and fuel impelled military expansion, but these did not present obstacles to Japanese economic growth until after 1930.<sup>53</sup> Japan's export trade was dominated by the products of light industries, with raw materials for those industries providing the bulk of imports. Iron ore and coal were imported from other Asian countries, and the near universal use of electric motors in medium- and small-scale firms reduced demand for imported natural resources. Military build-up promoted the growth of resource-intensive heavy industries when supplies of resources from Asia were uncertain. Manchukuo was prized by the Japanese for its industrial potential and its strategic location for a future war with the Soviet Union. In 1937 Japanese forces invaded China, and after a three-month battle for Shanghai moved towards the capital at Nanking. When Germany invaded the Soviet Union in June 1941, Japan attempted to outflank the Chinese by sending troops to Indochina and demanding guaranteed supplies of oil and other resources from the Dutch East Indies. Embargoes on oil exports and the freezing of assets presented Japan with the choice of fighting the Americans, English and Dutch, or accepting defeat in China.

Recognition of imperial authority by the Japanese people was the basis of the almost complete freedom with which army and navy general staffs exercised their power. Through intimidation and punishment of cautious observers, the Japanese military seized the right to interpret what the interests of the nation were. Most conscripts were from villages where values of total loyalty to the state and the subordination of individual interests were preserved through social sanctions of ostracism.<sup>54</sup> As Iris Chang observes in

52 Saburō Ienaga, *The Pacific War, 1931–1945: A Critical Perspective on Japan's Role in World War II* (New York: Pantheon Books, 1978), pp. 9–10.

53 Yasuba, 'Did Japan ever suffer from a shortage', 550–556.

54 R. P. Dore and Tsutomu Ouchi, 'Rural origins of Japanese fascism', in J. W. Morley, ed., *Dilemmas of Growth in Prewar Japan* (Princeton University Press, 1971), pp. 181–209.



her account of the Rape of Nanking, just beneath the surface of unrestrained military adventurism lies pure evil.<sup>55</sup> Japan imposed its authority on China and Southeast Asia through merciless and dehumanising violence. Amongst the Allies this sowed the seeds of a refusal to accept anything less than the total defeat of a deeply loathed enemy.<sup>56</sup> Drawing on racial stereotypes of weak Chinese and selfish Americans and Englishmen, the Japanese military had expected that war would demoralise its enemies. On 7 December 1941 Japanese planes struck at Pearl Harbor and its armies invaded Malaya, leading to the surrender of British and American forces at Singapore and Manila.

Japanese aggression and the likelihood of further attacks galvanised the Allies. The Second World War created a sense of community and participation that transcended group and individual loyalties. War mobilisation activated latent resources by directing labour and capital to the war effort. After Pearl Harbor, inmates at San Quentin State Prison volunteered to manufacture military textiles and furniture and weave submarine nets, while those at Alcatraz did the Army and Navy laundry.<sup>57</sup> In Melbourne, where the Allies' Southwest Pacific command under General Douglas MacArthur was initially based, tens of thousands of people volunteered for civil defence positions and rented rooms to military personnel and manufacturing workers.<sup>58</sup> Since the gold rushes, Californians and Australians had reinvested the wealth generated from resource extraction in productive areas, stimulating population growth and the expansion of manufacturing and service activity. These economies became less reliant on resource-based industries in the first half of the twentieth century, as manufacturing of consumer durables and fast-moving consumer goods and entertainment and leisure industries became more profitable due to technological change.<sup>59</sup> The opening of the Panama Canal in 1914 and the boom in shipbuilding during the First World War heightened a sense of economic opportunity in the cities of America's Pacific

55 Iris Chang, *The Rape of Nanking: The Forgotten Holocaust of World War II* (New York: Basic Books, 1997), p. 4.

56 John W. Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Pantheon, 1986).

57 Roger W. Lotchin, *The Bad City in the Good War: San Francisco, Los Angeles, Oakland, and San Diego* (Bloomington, IN: Indiana University Press, 2003), pp. 51–52.

58 Kate Darian-Smith, *On the Home Front: Melbourne in Wartime, 1939–1945*, 2nd edn (Melbourne University Press, 2009).

59 Richard Walker, 'California's golden road to riches: natural resources and regional capitalism, 1848–1940', *Annals of the Association of American Geographers* 91:1 (2001), 167–199; David Merrett and Simon Ville, 'Tariffs, subsidies, and profits: a re-assessment of structural change in Australia 1901–39', *Australian Economic History Review* 51:1 (2011), 46–70; Ian W. McLean, *Why Australia Prospered: The Shifting Sources of Economic Growth* (Princeton University Press, 2013), pp. 176–183.

coast. Several cities competed to establish naval bases when the Navy sent half of its fleet to the Pacific in 1919.<sup>60</sup> Government investment in expanding these industrial bases was decisive in the Allied counter-offensive against a resource-weak Japan. As Carl Abbott observes, 'In an era when one thousand dollars could buy a very good car, Houston, Fort Worth, Wichita, Seattle, Portland, San Francisco, Los Angeles, and San Diego all received more than one billion dollars in war-supply contracts from 1940 to 1945.'<sup>61</sup> On vacant land at Richmond, next to the deep waters of San Francisco Bay, Henry Kaiser built shipbuilding yards that by V-J Day had employed 250,000 workers and produced 1,490 ships.<sup>62</sup> When American and Australian plants and workers were reconverted to peacetime activity, they helped to overcome acute housing shortages and supplied markets that boomed with the release of pent-up demand for family formation.<sup>63</sup>

After the unconditional surrender of Japan in 1945, the US Army under the Supreme Command of MacArthur occupied the devastated nation and imposed what the victors and vanquished called a 'democratic revolution from above'.<sup>64</sup> Constitutional reform liberated Japan through demilitarisation and the guarantee of civil liberties, including the extension of suffrage to women.<sup>65</sup> For Joseph Dodge, a Detroit banker who was authorised to stabilise the economy, Japan was 'an important border in the worldwide clash between Communism and Democracy and ... only a self-supporting

60 Roger W. Lotchin, *Fortress California, 1910–1961: From Warfare to Welfare* (Urbana, IL, and Chicago: University of Illinois Press, 1992).

61 Carl Abbott, 'The federal presence', in Clyde A. Milner II, Carol A. O'Connor and Martha A. Sandweiss, eds., *The Oxford History of the American West* (Oxford University Press, 1994), p. 482.

62 Mel Scott, *The San Francisco Bay Area: A Metropolis in Perspective*, 2nd edn (Berkeley, CA, and Los Angeles: University of California Press, 1985), pp. 245–246; Mark S. Foster, 'Giant of the West: Henry J. Kaiser and regional industrialization, 1930–1950', *Business History Review* 59:1 (1985), 9.

63 Gerald D. Nash, *The American West Transformed: The Impact of the Second World War* (Bloomington, IN: Indiana University Press, 1985); Marilyn S. Johnson, *The Second Gold Rush: Oakland and the East Bay in World War II* (Berkeley, CA, and Los Angeles: University of California Press, 1993); Paul W. Rohde, 'After the war boom: re-conversion on the U.S. Pacific Coast, 1943–49', NBER Working Paper No. 9854 (2003), [www.nber.org/papers/w9854](http://www.nber.org/papers/w9854), accessed 27 March 2012; Kate Darian-Smith, 'World War 2 and post-war reconstruction, 1939–49', in Alison Bashford and Stuart Macintyre, eds., *The Cambridge History of Australia*, Vol. 2: *The Commonwealth of Australia* (Cambridge University Press, 2013), pp. 105–109.

64 John W. Dower, *Embracing Defeat: Japan in the Wake of World War II* (New York: Norton, 1999), p. 69.

65 Eiji Takemae, *The Allied Occupation of Japan* (New York: Continuum International, 2002); Mire Koikari, 'Rethinking gender and power in the US occupation of Japan, 1945–1952', *Gender & History* 11:2 (1999), 313–335.

and democratic Japan can stand fast against Communism'.<sup>66</sup> Dodge's US Aid Counterpart Fund operated in a similar way to the Marshall Plan, with funds from the purchase of American imports being transferred to the Japanese budget to provide long-term low-interest loans to priority industries. New agencies of the Japanese government were created to boost the private export sector – notably the Ministry of International Trade and Industry (MITI) in 1949. At a time of rampant inflation, Dodge shrank the public sector to balance the national budget and curbed the power of trade unions. The Korean War and the resulting US demand for military products stimulated an economic boom in Japan. From 1950 to 1953 Japan received US\$2.3 billion in US 'special procurements' – more than the total amount of US aid received between 1945 and 1951.<sup>67</sup> By the time the occupation ended in 1952, Japan was permanently disarmed and liberal ideals were embedded in law.

During the Cold War Japan continued to focus on labour-intensive industries that were efficient due to a high-quality workforce and economy of resource use. The Korean War boom revived Japan's steel, shipbuilding and motor vehicle industries and encouraged many companies to upgrade their equipment and embrace the American technique of quality control. Throughout East Asia a 'flying geese pattern of economic development' emerged through the diffusion of Japanese technology and the commercial skills of the overseas Chinese.<sup>68</sup> Rising wage costs in Japan and political instability in China resulted in labour-intensive, low-technology industries such as textiles being transferred to South Korea, Taiwan and Hong Kong, where labour costs were lower. Domestically, Japan began to shift resources to higher value-added industries such as consumer electronics. When they had been colonies of Japan, South Korea and Taiwan benefited from investment in infrastructure and education. Now, Cold War alliances that attracted military and economic aid and boosted trade were accompanied by land reform that favoured peasant farmers and boosted agricultural production.<sup>69</sup> Textile and other manufactured exports grew rapidly, drawing on skilled, low-cost labour forces and high savings rates. By the 1980s resources were increasingly allocated to price-elastic electrical and electronic goods, as American companies sought cheaper locations and suppliers who were fast and reliable. Following the Japanese example, South Korea challenged

66 Quoted by Howard B. Schonberger, *Aftermath of War: Americans and the Remaking of Japan, 1945–1952* (Kent State University Press, 1989), p. 201.

67 Dower, *Embracing Defeat*, p. 542. 68 Sugihara, 'The Second Noel Butlin Lecture', 140.

69 Robert Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton University Press, 1990), pp. 82–84.

America's automobile industry with affordable, well-made, Italian-designed cars.<sup>70</sup>

China's participation in this growth was delayed until policies of openness and decentralisation stimulated trade and foreign direct investment in the late 1980s and the 1990s. After the fall of the Qing, warlord armies fought for control of territory. The Nationalist government – the Kuomintang (KMT) – that ruled China from 1927 to 1937, struggled to exert its authority in the provinces, but regional autonomy promoted economic growth, especially in Shanghai and its Lower Yangzi hinterland.<sup>71</sup> Entrepreneurs and skilled workers fled China after the establishment of the People's Republic in 1949 – Hong Kong's population grew from 600,000 in 1945 to over 2 million by 1950.<sup>72</sup> China was isolated internationally by the Korean War and was dependent on the Soviet Union for technical and financial assistance. Mao Zedong's building of a heavy industrial base rested on a state-run industry, five-year plans and prices that were fixed rather than freely determined. Foreign trade was a state monopoly and autarky was a goal, except for imports of producer goods from other communist regimes. State enterprises provided housing, education, health care and guaranteed jobs for workers. During the Great Leap Forward (1958–1962), 130 million family farms were transformed into 26,000 people's communes with an average size of 6,700 workers. Workers were not allowed to leave the communes and there were no incentives to increase production. Three years of harvest failure resulted in around 30 million excess deaths and 33 million lost or postponed births.<sup>73</sup> After this catastrophe statistical information became scarce and was distorted for political reasons during the 1960s and 1970s, which makes evaluation of China's economic performance difficult. Maddison estimates that China's per capita GDP grew at a modest rate of just over 2 per cent per annum in 1952–1978, mainly due to the

70 David Halberstam, *The Reckoning* (New York: Avon Books, 1986).

71 Wong, *China Transformed*, pp. 166–177; Thomas G. Rawski, *Economic Growth in Pre-war China* (Berkeley, CA, and Los Angeles: University of California Press, 1989); Ronald Suleski, *Civil Government in Warlord China: Tradition, Modernization and Manchuria* (New York: Peter Lang, 2002); Debin Ma, 'Economic growth in the Lower Yangzi region of China in 1911–1937: A quantitative and historical analysis', *Journal of Economic History* 68:2 (2008), 355–392.

72 E. G. Pryor, 'A historical review of housing conditions in Hong Kong', *Journal of the Hong Kong Branch of the Royal Asiatic Society* 12 (1972), 108–109.

73 Angus Maddison, *Chinese Economic Performance in the Long Run: Second Edition, Revised and Updated, 960–2030 AD* (Paris: OECD, 2007), p. 19; Justin Yifu Lin, 'Collectivisation and China's agricultural crisis in 1959–1961', *Journal of Political Economy* 98:6 (1990), 1228–1252; Wei Li and Dennis Tao Yang, 'The Great Leap Forward: anatomy of a central planning disaster', *Journal of Political Economy* 113:4 (2005), 840–77.

increased application of labour resources to production processes.<sup>74</sup> Higher education collapsed during the Cultural Revolution (1966–1969), but the quality of the labour force was boosted by increased enrolments at the primary and secondary level and improvements in health.

After Mao's death in 1976, China joined Asia's 'flying geese' by opening itself to foreign trade and investment in tax-favoured special enterprise zones. Controls on agricultural production were relaxed and market-based incentives allowed the movement of labour from rural to urban areas, releasing constraints on the growth of the service sector. Rising farm incomes generated domestic savings and created demand for improved housing and a range of consumer goods. China's per capita GDP grew at an annual average of 6.6 per cent between 1978 and 2003 – almost exactly the same rate as Japan's between 1952 and 1978.<sup>75</sup> While per capita incomes increased overall, the benefits of economic growth were concentrated in China's coastal cities and their hinterlands.<sup>76</sup> Past social safeguards in health care and housing were abandoned. Tension between those who were ready for change and those who clung to old ways boiled over during the suppression of student and worker protests in the 1989 Beijing massacre. Although the path to economic reform was maintained, the Party failed to address human rights abuses, high levels of female infant mortality and environmental damage.

## Conclusion

The transformation of the world economy in the century preceding the First World War due to falling trade costs and the establishment of open markets allowed consumers and producers around the world to reap the maximum benefits from commercial exchange. When markets worked on the basis of voluntary interaction between buyers and sellers, the well-being of participants and society in general was maximised, as Adam Smith predicted. Buyers revealed their preferences for the products that trade made available by accepting or rejecting the price nominated by sellers. Sellers adjusted production to meet the expectations and changing wants of consumers at the lowest possible cost. In this period, and again after the Second World War, greater freedom of movement of goods, capital, people and ideas across and

74 Maddison, *Chinese Economic Performance in the Long Run*, pp. 67–68. 75 Ibid. p. 68.

76 Ravi Kanbur and Xiaobo Zhang, 'Fifty years of regional inequality in China: a journey through central planning, reform, and openness', *Review of Development Economics* 9:1 (2005), 87–106.

around the Pacific increased levels of real incomes and reduced their volatility.

The growth of trade in the Pacific was not a benign or frictionless process. It spread disease, destroyed traditional ways of life and was used to condone violence and war. Opening markets was contingent on British and American industrialisation, which provided the motive and means for exercising power over societies for which participation in overseas trade had hitherto been limited. Trading companies and independent merchants, with the support of their national governments, were able to use their superior resources to deploy power to achieve their own ends. Mass migration, settlement of new primary producing regions and the capital generated by gold discoveries increased the power imbalance in Europe's favour. In Meiji Japan, free trade and access to Western technology allowed the nation to draw on traditional skills and networks of social relationships to expand trading activity and become a colonial power in its own right. Japan's invasion of China and attack on Pearl Harbor set in motion a chain of events that would generate economic opportunities around the Pacific. The Allies' federal government spending on the war effort expanded their industrial capacity, which played an important role in an unprecedented postwar economic boom. The US occupation of Japan and continuing aid fostered technological change that was diffused to other parts of Asia. A Chinese diaspora spread commercial skills around the Pacific. Since the mid-eighteenth century, the history of the Pacific has been shaped by exogenous shocks that provide openings for institutional change that shape subsequent economic and social conditions in path-dependent ways.

### Further reading

- Abbott, Carl. 'The federal presence'. In Clyde A. Milner II, Carol A. O'Connor and Martha A. Sandweiss, eds., *The Oxford History of the American West*. Oxford University Press, 1994, pp. 468–499.
- Blainey, Geoffrey. *The Tyranny of Distance: How Distance Shaped Australia's History*. Melbourne: Macmillan, 1966.
- Blussé, Leonard. *Visible Cities: Canton, Nagasaki, and Batavia and the Coming of the Americans*. Cambridge, MA: Harvard University Press, 2008.
- Chang, Kornel S. *Pacific Connections: The Making of the U.S.–Canadian Borderlands*. Berkeley, CA, and Los Angeles: University of California Press, 2012.
- Darian-Smith, Kate. *On the Home Front: Melbourne in Wartime, 1939–1945*, 2nd edn. Melbourne University Press, 2009.
- Eiji, Takemae. *The Allied Occupation of Japan*. New York: Continuum International, 2002.

- Flynn, Dennis O., and Arturo Giráldez, eds. *The Pacific World: Lands, Peoples and History of the Pacific, 1500–1900*, 17 vols. Aldershot: Variorum/ Ashgate, 2009.
- Hanley, Susan B. *Everyday Things in Premodern Japan: The Hidden Legacy of Material Culture*. London: University of California Press, 1997.
- Hatton, Timothy J., and Jeffrey G. Williamson. *Global Migration and the World Economy: Two Centuries of Policy and Performance*. Cambridge, MA: MIT Press, 2005.
- Hoare, J. E. *Japan's Treaty Ports and Foreign Settlements: The Uninvited Guests 1858–1899*. Folkestone: Japan Library, 1994.
- Igler, David. *The Great Ocean: Pacific Worlds from Captain Cook to the Gold Rush*. Oxford University Press, 2013.
- Jones, Eric, Lionel Frost and Colin White. *Coming Full Circle: An Economic History of the Pacific Rim*. Boulder, CO: Westview Press, 1993.
- Kimura, Mitsuhiro. 'The economics of Japanese imperialism in Korea, 1910–1939'. *Economic History Review* 48:3 (1995), 555–574.
- Lotchin, Roger W. *The Bad City in the Good War: San Francisco, Los Angeles, Oakland, and San Diego*. Bloomington, IN: Indiana University Press, 2003.
- McLean, Ian W. *Why Australia Prospered: The Shifting Sources of Economic Growth*. Princeton University Press, 2013.
- McNeill, J. R. 'Of rats and men: a synoptic environmental history of the island Pacific'. *Journal of World History* 5:2 (1994), 299–349.
- Nash, Gerald D. *The American West Transformed: The Impact of the Second World War*. Bloomington, IN: Indiana University Press, 1985.
- Pao-San Ho, Samuel. 'Colonialism and development: Korea, Taiwan, and Kwantung'. In Ramon H. Myers and Mark R. Peattie, eds., *The Japanese Colonial Empire, 1895–1945*. Princeton University Press, 1984, pp. 347–398.
- Peattie, Mark R. 'The Japanese colonial empire, 1895–1945'. In Peter Duus, ed., *The Cambridge History of Japan*, Vol. 6: *The Twentieth Century*. Cambridge University Press, 1988, pp. 217–270.
- Perry, John Curtis. *Facing West: Americans and the Opening of the Pacific*. Westport, CT: Praeger, 1994.
- Sugihara, Kaoru. 'The Second Noel Butlin Lecture: labour-intensive industrialisation in global history'. *Australian Economic History Review* 47:2 (2007), 121–154.
- Tyrrell, Ian. *True Gardens of the Gods: Californian–Australian Environmental Reform, 1860–1930*. Berkeley, CA, and Los Angeles: University of California Press, 1999.
- Walker, Richard. 'California's golden road to riches: natural resources and regional capitalism, 1848–1940'. *Annals of the Association of American Geographers* 91:1 (2001), 167–199.
- Wills, John E., Jr. 'Maritime Asia, 1500–1800: the interactive emergence of European domination'. *American Historical Review* 98:1 (1993), 83–105.
- Wong, R. Bin. *China Transformed: Historical Change and the Limits of European Experience*. Ithaca, NY, and London: Cornell University Press 1997.
- Yasuba, Yasukichi. 'Did Japan ever suffer from a shortage of natural resources before World War II?' *Journal of Economic History* 56:3 (1996), 543–560.

# Index

Please note that page numbers for figures, tables, maps, and illustrations are in bold typeface.

- 9/11 terrorist attacks, 487, 608
- Abbott, Carl, 626
- Abd al Qadir, Amir, 477
- Abduh, Muhammad, 477
- abolitionism
  - African, 560, 566
  - rise of, 20, 349
  - Russian, 19
  - United States, 587, 590, 596
- abortion, 193, 224
- advertising. *See* marketing (mass)
- Afghanistan
  - Cold War, 414–415, 434
  - disease control, 272
- Africa
  - agriculture, 88, 102, 562–564
  - colonialism, 337, 347–348, 561–572, **563**, **567**
  - decolonization, 572–578, **576**
  - demography, **189**, **204**, 206, 232
  - genocide, 428–430
  - HIV and life expectancy, 207
  - housing in, 151
  - human origins in, 556–557
  - industrialization, 375–376
  - land, 375
  - nationalism in, 327–328
  - nation states in, 578–580
  - slave trade, 25, 557–559
  - war casualties, 24
- African National Congress (ANC), 577–578
- Afrikaners (South Africa), 568–569
- Age of Empires* (video game), 338
- agrarian politics
  - marginalizing nomadic peoples, 5
  - at war with nomadic peoples, 7–8
- agricultural inputs, growth in, **85**, 85–89, **87**, **89**
- agriculture
  - African, 88, 102, 375, 562–564
  - chemicals, 91
  - collectivization, 98–99, 459
  - East Asia, 623
  - economics, 13–14, 83–103
  - and environmental destruction, 28
  - fixed-rent contracts, 98
  - innovation in, 90–92
  - intercontinental trade, 16–17
  - land input, 86–87, **87**
  - Middle East, 481
  - and Pacific Rim, 619
  - and policy, 100–103
  - and production, 83–89, **84**, **85**, **87**, **89**
  - and slavery, 560
  - technology, 158–160, **160**
  - United States, 372–373, 588, 590
- al-Afghani, Jamal al-Din, 477
- Alawi dynasty, 474
- al-Azhar (university), 477
- alcoholism, 67
- Algeria
  - French conquest of, 313
  - Islamic movements, 487
  - ulama, 484
  - wars, 475
- Algerian War, 404–406
- Ali, Muhammad, 471–472, 475
- Al-i Ahmad, Jalal, 417
- All-African People's Congress (1958), 577
- Allende, Salvador, 550
- Alliance for Progress, 549
- Alma-Ata Declaration (1978), 277, 279



- Al-Manar*, 477  
 al-Qaeda, 487  
 American Popular Revolutionary Alliance, 543  
 American Public Health Association, 268  
 American Revolution, 21, 339  
*Anarchical Society, The*, 303  
 Anatolia, 426–427  
 Anderson, Benedict, 31, 321  
 Anglo-Boer War, 569. *See also* South Africa  
 Angola, 414  
 animals  
   and disease transmission, 245, 248–250, 375  
   extinctions, 75  
   hybridization of, 90–91, 159–160, **160**  
   quarantine of, 248–249  
   work, 12–13  
*Antelope, The* (1825 Supreme Court decision), 289  
 anthracite coal, 168–169  
 Anthropocene age. *See also* environment  
   beginnings of, 51–53  
   climate change in, 71–72  
   energy shifts in, 53–63  
   politics in, 69–71  
   population growth in, **63**, 63–67, **64**, **65**, **66**  
   urbanization in, 67–68  
 antibiotics, 253  
 anti-colonialism. *See* decolonization  
 Aponte, Carlos, 543  
 Apple Corporation, 513, 515  
 Aquinas, Thomas, 287, 291  
 Arab League, 488–489  
 Arab Petroleum Conference, 488  
 Arab Spring, 153, 468, 487, 490  
 Arab–Israeli conflict, 483, 487–488  
 Arabian American Oil Company (Aramco), 482, 488  
 Arbenz, Jacobo, 548  
 Arendt, Hannah, 428  
 Arevalo, Juan José, 548  
 Argentina, 250, 551  
 Armas, Carlos Castillo, 548  
 Armenian genocide, 426–427  
 Asante (African kingdom), 560  
 ASEAN, 518  
 Asia. *See* East Asia; South Asia; Southeast Asia, *and individual countries*  
 Asian Development Bank, 518  
 assembly line manufacturing, 137–138, **139**  
 assimilation, 487  
 Association of Algerian Ulama, 484  
 Aswan Dam, 145  
 “Atlantic creole.” *See* creoles  
 Atlantic Ocean  
   colonialism, 332, **334**  
   and disease transmission, 239–240  
   migration, 592–594  
   revolutions, 3  
   slavery, 557–559  
 atomic bomb, 154, 156–157  
   energy of, 180, **181**  
 Augustine, Saint, 287, 291  
 Australia  
   genocide, 430  
   gold, 616–617  
   irrigation engineering, 146  
   shipment of convicts to, 6  
 Austrian Empire, **333**, 368, 454  
 Austro-Hungarian Empire, 368, 369  
 authoritarianism. *See also* totalitarianism  
   China, 523  
   and genocide, 439  
   Middle East, 480, 486, 491  
 automobile  
   assembly line manufacturing, 137–138, **139**  
   and pollution, 59  
   South Korean, 627  
   as symbol of industrialization, 149  
*Axis Rule in Occupied Europe*, 421  
 Aziz, Abd al-, 478  
 Baekeland, Leo Hendrik, **143**  
 Baghdadi, Khalid al-, 472  
 Bakelite (plastic), **143**  
 Ballantyne, Tony, 338, 341, 362  
 Bandung Conference, 415, **416**, 485, 577  
 Bangladesh, 151, 241, 439  
 Barraclough, Geoffrey, 478  
 Barrios, Justo Rufino, 538  
 BASF (dye company), 141  
 Bashford, Alison, 8, 9, 38  
 Bashir, Omar al-, 437  
 Batista, Fulgencio, 548  
 Battle of Ayacucho (Peru), 529  
 Bauman, Zygmunt, 423  
 Bay of Pigs, 549  
 Bayly, C. A., 315  
 Beals, Carleton, 543  
 Belgium, 564  
 Bell, Alexander Graham, 153  
 Bell, David A., 312  
 Bell Laboratories of Bell Telephone, 142  
 Berlin Wall, 42  
 Bessemer, Henry, 143  
 biomass (human), 66

- biopolitics, 212
- "bio-power," 357–358
- bird flu, 256
- birth control. *See* fertility control
- birth rates
  - Anthropocene age, 66
  - in cities, 13
  - developing countries, 204
  - Global North, 198–201
  - modern world, 8–9, 189–192, 191
  - in totalitarian states, 456
  - United States, 593
- "birth strikes," 220–222
- bison, 595
- Bisphenol (BPA), 143
- Blanco, Antonio Guzmán, 539
- Blussé, Leonard, 497
- Bodies in Contact*, 338
- Bolívar, Simón, 3, 531
- Bolivia, 530
- Bolshevik Revolution (1917), 317
- Bolsheviks
  - and feminism, 457
  - in Russia, 450–451, 459
- Bonaparte, Joseph, 490
- Bonaparte, Napoleon, 23, 323, 471, 529, 588, 618
- Bouazizi, Mohamed, 490
- bovine pleuropneumonia, 248
- Boxer Rebellion, 348, 620
- Boylston, Zabdiel, 260
- Brazil
  - banking sector, 374
  - as colony, 332, 339–340
  - decolonization, 532
  - gold and diamond discovery sparking migration, 5
  - housing in, 151
  - hydroelectricity, 146
  - intendancy system, 527
- Brest-Litovsk, Treaty of, 326
- Breton, André, 544
- Bretton Woods Agreement, 606
- British imperialism
  - in Africa, 312–313, 347–348, 560, 564, 573–576
  - agricultural regulation, 101
  - Australia, 6
  - coal usage in, 54–55
  - Cold War, 485
  - cotton textile manufacturing, 11–12
  - deportation of Catholics, 431–432
  - energy consumption, 178
  - as example for others to follow, 366
  - extent of, 334, 335–336
  - fall of, 402
  - fertility control, 198, 199
  - hub-and-spoke model of, 342–344
  - as imperial web, 339–340, 360–361
  - investment in Latin America, 540
  - leader in world economy before World War I, 618
  - and Middle East, 478
  - nuclear weapons, 157
  - railways, 147–148
  - in Southeast Asia, 3, 6
  - United States affected by, 585, 587–588, 590
- brothels, 456
- Buck, Pearl, 411
- Buddhism
  - revivals, 43
  - Siamese, 377
  - as a world religion, 31–32
- Buganda (African kingdom), 560
- Bull, Hedley, 303–304
- Burbank, Jane, 341, 360
- Burton, Antoinette, 338, 341, 362
- Cabrera, Manuel Estrada, 538
- Cain, Peter, 339
- Cambodia, 434–435, 442
- campesinos*, 537, 538, 542–543, 544
- Cananea Consolidated Copper Company, 542
- cancer (disease), 255
- Candau, Marcolino, 275–276
- candle power, 174, 175
- Canning, George, 540
- capital stock (agricultural), 87–88
- capitalism
  - after Cold War, 418
  - and communism, 444, 464
  - East Asia, 44
  - South Africa, 568–569, 573
  - United States, 604
- Capitalism and Slavery*, 343
- Cárdenas, Lázaro, 547, 552
- Caribbean
  - African slaves in, 558, 591
  - US control, 602
- Carnegie Foundation, 227
- Carranza, Venustiano, 542–543
- Carrera, Rafael, 534
- Carter, Jimmy, 488
- Castro, Fidel, 548
- Catholic. *See* Roman Catholics

- caudillo (strong leader), 534, 538
- census
- for fertility and mortality, 224–225
  - for political arithmetic, 213–214
- Centers for Disease Control (CDC), 271
- Central America
- United States informal empire in, 602
  - US paternalistic attitude towards, 410, 434
- Central Intelligence Agency (US), 548, 550
- Central Treaty Organization (CENTO), 485, 604
- Césaire, A., 343
- Chadwick, Edwin, 243
- Chambers of Commerce (China), 383
- Chang, Iris, 624
- Charles II, King of Spain, 527
- Charles III, King of Spain, 527
- Charles IV, King of Spain, 529
- Charlip, Julie A., 44
- Chávez, Hugo, 553
- Chernobyl (nuclear reactor), 156
- Chile
- decolonization, 529
  - revolutionary movement, 549–550
- China
- 19th-century, 622
  - agriculture, 88, 101
  - and Cold War, 416–417
  - creation of modern borders, 5
  - demography, 67, 192–193, 204, 212–213, 611
  - diseases, 243–244, 263–264
  - energy consumption, 54, 178
  - energy transition in, 165
  - family planning, 9, 229
  - GDP (GDP adjusted), 511
  - genocide, 433
  - Industrial Revolution, 61
  - migration, 15
  - nuclear weapons, 157
  - property ownership in, 95
  - rise of modern, 369, 493, 494, 608
  - self-strengthening, 620
  - state expansion, 6–7, 493, 501–502
  - tributary-trade system, 497–503, 514, 516
  - and Vietnam and Korean Wars, 412–413
  - world religions in, 32
  - in WTO, 513
- Chinese Exclusion Act (US), 593
- Chittagong Hill Tracts (CHT), 439
- cholera (disease), 240–243
- Christianity
- and law of nature, 287
  - revivals, 43
  - as a world religion, 31–32
- Chulalongkorn, King of Siam, 378
- Cicero, 291
- cities. *See also* urbanization
- African, 571–572
  - and building materials, 149–151
  - and disease transmission, 68, 238–239, 253
  - industrialization in, 12–13, 58–63
  - Middle East, 481
- citizenship
- in Africa, 569–570, 573, 579
  - and colonialism, 400
  - racist barriers to, 410
- Civil War (US), 23, 593, 596–597
- Clayton-Bulwer Treaty, 541
- Clermont (steamboat), 152
- climate change. *See also* global warming
- Anthropocene age, 71–72
  - and automobiles, 149
  - and genocide, 440
  - and human impacts, 28
  - and population politics, 232–233
- Clinton, Bill, 608
- clove production, 560
- Club of Rome, 230
- coal age (Anthropocene epoch), 52–53, 54–55, 57, 168–169
- Cold War
- and communism, 442
  - and decolonization, 41, 407–415
  - demographic divisions, 225
  - and East Asia, 508–509
  - fertility control, 226
  - genocide, 434
  - human rights law, 302
  - and Japan, 627–628
  - in Korea, 403
  - Latin America, 547–551, 552
  - and Middle East, 485–486
  - nuclear technology in, 155–158
  - and smallpox, 265–267, 278–279
  - and UN Security Council, 299
  - US economy, 606, 607
  - “Cold War Orientalism,” 410–411
- collectivization
- of agriculture, 98–99, 456, 459
  - in fascism, 447, 456
- Colonial Development and Welfare Act (1940), 571
- colonialism
- African, 561–572, 563, 567
  - demography, 216–218

- colonialism (*cont.*)
  - funding agricultural R&D, 88, 94
  - and genocide, 428–432
  - ignoring property rights, 96
  - Japanese, 504–506
  - Latin America, 526–529
  - models of, 341–347
  - racism in, 28
  - Southeast Asia, 376
  - warfare associated with, 23–24, 529
  - Western European states committed to, 310–312
- Columbia, 530
- Comité Neo-Malthusiano del Río de la Plata*, 220
- Committee of Union and Progress (CUP), 426–427
- communism
  - and capitalism, 464
  - and family planning, 227
  - as ideology, 443–447
  - and nationalism, 316–319
  - political identity in, 33
  - and population politics, 215–216
  - as regime, 454–456, 457–458, **460**, 463–464
  - as social movement, 450–452
  - and Soviet self-determination, 409
- comparative advantage development strategy (Latin America), 536
- computer technology, 154
- Comte, Auguste, 535–536
- Concentrated Animal Feed Operations (CAFOs), 159–160, **160**
- concrete technology, 149–150
- Confucianism, 43
- Congo
  - Cold War, 413
  - resources in, 438
- Conklin, Alice, 351
- conservation laws (US), 598
- Constitutional Revolution (Iran), 484
- consumer revolution, 34
- convention. *See* treaties
- Cook, James, 614
- Cooke, Nola, 501
- “coolies,” 241–242
- Cooper, Frederick, 15, 18, 19, 341, 360
- co-operatives. *See* collectivization
- Correa, Rafael, 553
- Cortés, Hernán, 308
- Costa Rica, 531
- cotton famine, 19
- cotton textile manufacturing,
  - British colonialism, 343
  - China, 384
  - India, 360
  - in Industrial Revolution, 11–12, 137
  - as part of plantation complex, 57
  - United States, 372, 590, 596, 598
- credit. *See also* loans
  - farming, 98–99
  - United States, 600–601
- creoles, 6, 7, 557
- Cronin, Bruce, 303
- Crosby, Alfred, 429
- Crutzen, Paul, 51
- Crystal Palace, 143
- Cuba
  - Bay of Pigs, 549
  - communism in, 319, 451
  - foreign trade, 545
  - free trade in Seven Years’ War, 527
  - independence movement, 541
  - US control, **337**, 602
- cultivation. *See* agriculture
- Cultural Revolution (China), 445, **460**, 629
- culture
  - and colonialism, 356
  - and international law, 290–292
  - and nationalism, 307
  - and slavery, 351–352
  - and technologies of rule, 351–352
- Cummings, Bruce, 496
- currency
  - devaluation of British, 401
  - and discovery of gold, 618
  - and East Asia, 514–515, 517
  - United States currency of world finance, 606
- customs. *See* culture
- Czechoslovakia, 414
- da Gama, Vasco, 611
- da Silva, Luis Lula Inácio (Lula), 553
- Dahomey (West Africa), 560
- dams, 145–146
- Darwin, John, 338, 361
- DDT (pesticide), 91
- de Gouge, Olympe, 40
- De Indis*, 287
- de Vries, Jan, 502
- Debayle, Anastasio Somoza, 550
- debt
  - European, 600–601

- Latin America, 374, 550  
 peonage, 537  
 Declaration of Independence (US), 587  
 Declaration of the Rights of Man, 3  
*Declaration of the Rights of Woman*, 40  
*Decline and Fall of the Roman Empire*, *The*, 336  
 decolonization  
   20th-century, 396–418  
   African, 572–578  
   ambiguity in describing, 41  
   Anthropocene age, 69  
   and disease control, 278  
   Latin America, 373–374, 529–535, **530**  
   United Nations forum for, 327  
   United States, 3, 586–588  
 deforestation. *See also* wood  
   Anthropocene age, 286  
   United States, 589  
 democracy  
   19th-century, 69  
   and communications technology, 152  
   and fascism, 447  
   Islamist, 487  
   Latin America, 547  
   post-World War II Japan, 626–627  
   and totalitarianism, 454  
 demography  
   18th-century, **189**, 192–196  
   18th-century New World, 194–195  
   19th-century, **189**  
   20th-century, **189**  
   21st-century, **189**  
   African slave trade, 559  
   Anthropocene age, **63**, 63–67, **64**, **65**, **66**  
   China, 623  
   and colonialism, 216–218  
   demographic transition, 189–205, **191**, **199**,  
     212–216, 225  
   and energy use, 55  
   Global North, 198–201  
   Global South, 201–205, **202**, **204**  
   population density, **64**  
   United States, 592–594, 599, 603  
   world forecast, 103, 205–209  
   world population growth, 75–76, 187–188,  
     **189**  
   world slave, 591  
 Denmark, 99  
 deportation (indigenous people), 216–218  
 Deutsch, Karl, 496  
 developing countries  
   demography, 197, 201–205, **202**, **204**  
   more diseases in, 250–255, **254**  
   diabetes (disease), 254  
   diamond mining, 568  
   diasporas (trade), 564  
   Díaz, Porfirio, 538, 542–543  
   dichlorodiphenyltrichloroethane. *See* DDT  
   digital communications, 154  
   Diop, Cheikh Anta, 556  
   Dirty War (Argentina), 551  
   *Discourse on Colonialism*, 343  
   disease. *See also* health  
     and 18th-century depopulation, 216  
     Africa, 375, 579  
     and animals, 245, 248–250  
     Anthropocene age, 67  
     eradication, 267–279  
     and global division, 250–255  
     and global warming, 71–72  
     globalization, 255–257  
     in modern world, 237–257  
     mortality decline, 197  
     technology, 150  
   Dodge, Joseph, 626–627  
   Dominican Republic, 531  
   drinking water  
     and death rates, 67  
     and disease transmission, 243  
   Duane, Anna Mae, 243  
   Duara, Prasenjit, 41, 506  
   Dubois, W. E. B., 556  
   Dutch Golden Age, 54  
  
 East African slave trade, 559  
 East Asia  
   18th-century, 497–503  
   19th-century, 380–392  
   21st-century, 509–522  
   capitalism in, 44  
   demography, **204**  
   geopolitics, 493–496  
   Great Divergence, 503–509  
   silver importance, 616  
   state expansion, 388–390  
   superiority in coastal water navigation, 613  
   as world region, 496–497, **498**  
 East India Company, 356–357, 360, 379, 613  
 “Eastern Question,” 471–472  
 Economic Commission on Latin America  
   (UN), 547  
 economic development  
   18th-century, 214–215  
   British Empire, 343–344  
   East Asia, 314, 516–517  
   following Europe’s lead, 164, 372

- economic development (*cont.*)  
 Pacific Rim, 505, 621–623  
 United States, 588–590
- economic globalization  
 growth of, 75–76, 629  
 origins of, 18, 75–76  
 and politics, 212–216
- economics  
 agricultural, 13–14, 83–103  
 China post-World War II, 628–629  
 and disease, 250–255, **254**  
 East Asia, 493–496, 511–513  
 and energy sources, 164–165  
 Japan 19th-century, 504  
 Latin America, 373–374, 544–547  
 Middle East, 472  
 nation state, 313  
 neo-colonialism, 540–541  
 neo-Malthusianism, 218–222  
 and slavery, 596–597  
 United States, 367, 375, 599–601
- Ecuador, 530
- education  
 colonial African, 565  
 and gender, 40
- efficiency  
 agricultural, 83, 88–89, **89**  
 energy conversions, 174–177, **175**, **176**  
 human energy use, 10
- Egypt  
 Arab Spring, 491  
 as British protectorate, 475  
 democracy, 487  
 Islamic movements, 487  
 monarchy overthrown in, 486  
 Napoleonic Wars, 471  
 self-determination, 483
- Ehrlich, Paul, 230
- Einstein, Albert, 156
- Eisenhower, Dwight, 155, 548
- El Salvador, 531
- electricity  
 hydro, 144–147, **146**  
 illumination, **175**  
 nuclear reactors, 155–156  
 and nuclear weapons, 70  
 and trade expansion, 17
- electronics industry  
 East Asia, 513  
 Japan, 627
- elites  
 competitive pressure for colonialism, 41–42  
 and fascism, 461  
 and genocide, 433–434, 438  
 Latin America, 534, 542, 544, 545  
 participation in Chinese rule, 383–384
- Ellul, Jacques, 140
- Elman, Benjamin, 382
- Elvin, Mark, 502
- empires. *See also* imperialism  
 of bases, 602–603  
 definition of, 332–341, **333**, **334**, **337**  
 models of, 341–347
- Empress of China* (ship), 616
- energy  
 consumption, 10, 53–63, 164–165, 177–179, **178**, 604–606  
 conversions, 174–177, **175**, **176**  
 density, 167–169  
 and mass consumerism, 604–606  
 measurement, 165–167  
 in weapons, 179–180, **181**  
 in world history, 181–182
- Engels, Friedrich, 140, 141, 215–216, 218
- engine power  
 gas turbine, 175–177  
 internal combustion, **176**
- engine technology, 137–138, **139**
- England. *See* Great Britain
- Enlightenment Age, 357–359
- environment. *See also* Anthropocene age  
 and agricultural technology, 103  
 in Anthropocene age, 71–72  
 and genocide, 439–440  
 Green Revolution, 91, 93, 228, 230  
 human impact on, 28, 80  
 and imperialism, 69–70  
 and politics, 230–233  
 river engineering, 144–145  
 and suburbanization, 151  
 United States, 597–598
- environmental movement, 77–79
- equestrian states, 5, 8
- Erbakan, Necmettin, 486, 487
- Essay on the Principle of Population*, 214–215, 218
- Ethiopia  
 Cold War, 414, 434  
 not colonized, 562
- ethnic cleansing. *See* genocide
- ethnicity  
 and genocide, 420–422, 433–434, 436–437, 459  
 and Japanese warfare, 506–508  
 and nationalism, 307–308, 319–324

- eugenics, 223–224, 229  
Eurocentrism  
  in 19th century, 366–380, **378**  
  in demography, 225  
  and East Asia, 496–497, 500, 613–614  
  in imperialist scholarship, 358–359  
*Europa Universalis* (video game), 338  
Europe  
  agricultural regulation, 101–102  
  demography, **189**, 195–196, **204**  
  farming co-operatives, 99  
  fertility control, 199–201  
  life expectancy, 198–199  
  Peace of Westphalia, 288–290  
  plague eradication, 238  
  railways, 148  
  ultra-nationalist movements in, 424–425  
European colonialism. *See also* empires;  
  imperialism  
  Africa, 561–562, **563**  
  first retreat of, 3  
  shift from Western to Eastern hemisphere, 3  
  warfare associated with, 23–24  
European Union (EU), 300–301, 463  
explosives (energy of), 180  
export economy  
  China, 622  
  Japan, 622, 624  
  Latin America, 535–539, 544  
  United States, 599–601  
*Exxon Valdez* disaster, 42  
  
factories. *See* industrialization  
*Facundo, or Civilization and Barbarism*, 537  
Fairbank, John, 496  
Falkland Islands, 540, 551, 618  
family  
  farms, 97–98  
  global trends in, 39–40  
  planning, 227  
  technology use, 39  
famine, 425–426  
Fanon, Frantz, 343, **405**  
fans  
  co-operatives, 98–99  
  factory, 256–257  
  income, 100–103  
  sharecropping, 98  
  total share of land, 97–98  
fascism. *See also* Nazis  
  as ideology, 446–450, **449**  
  as regime, 454–463  
  as social movement, 452–454, **453**  
  
Fasi, Allal al-, 483  
federalism (Latin America), 533  
feminism  
  19th-century, 218–222  
  20th-century, 228  
  Middle East, 481  
  political lobbying, 231  
  and totalitarianism, 456–458  
Ferdinand, Franz, 476  
Ferdinand VI, King of Spain, 527  
Ferdinand VII, King of Spain, 529  
Ferguson, Niall, 338, 361  
fertility control  
  19th-century views on, 218–221  
  as anti-communist measure, 228  
  and Cold War, 226  
  in Global North, 199–200  
  in modern world, 197–198, **199**  
  pill, 228  
  population policy, 227–229  
  projected demography, 207–208  
  research, 227  
  voluntary, 197  
fertility decline, 221–222  
fertilizer innovation, 91  
Fink, Carole, 41  
Finnane, Antonia, 12  
First World War. *See* World War I  
“five civilized tribes,” 590  
Florentine Codex, 352  
*Flowers in the Mirror*, 40  
flu. *See* influenza (disease)  
Fodio, Usman dan, 561  
food  
  and earth biosphere, 72–74, **74**  
  energy density of, 167  
  irradiated, 155  
  and population growth limits, 212–213  
  and steamships, 147  
  and urbanism, 68  
Food and Agriculture Organization (FAO),  
  84–86, 227, 300  
foot-and-mouth disease, 248–250  
forced labor. *See also* slavery  
  continuance of, 18–19  
  and property rights, 95  
Ford, Henry, 605  
Ford Foundation, 93, 227  
Ford Motor Company, 490, 605  
foreign investment (Latin America), 374, 538,  
  544  
fossil fuels  
  compared to nuclear, 155–156

- fossil fuels (*cont.*)  
 consumption, 177–178, **178**  
 and environmental destruction, 28  
 and industrialization, 598  
 leap in energy use, 53–63, **59**  
 prime movers and, 175–177, **176**  
 and trade expansion, 17  
 transition to from plants, 10  
 and urbanism, 67–68
- Foucault, Michel, 357
- Fouquet, Roger, 175, 178
- Foxconn, 513
- France  
 colonialism, 312–314, 351, 564, 566–567, **567**,  
     573–576, 587–588, 614, 620  
 empires, **334**, 335–336  
 energy consumption, **178**  
 fertility control, 197–198, **199**  
 foreign labor, 490  
 and Middle East, 478  
 nuclear reactors, 155  
 nuclear weapons, 157  
 railways, 148  
 revolution in, 21, 343, 527  
 soldiers in, 25
- Franco, Francisco, 544
- Frank, Andre Gunder, 497
- Franklin, Benjamin, 152, 311
- Frei, Eduardo, 549
- French Revolution, 21, 343, 527
- Frost, Lionel, 43–44
- fuel  
 energy density of, 168–169  
 fossil, 28, 53–63, **59**, 67–68, 155–156, **176**,  
     177–178, **178**, 598  
 nuclear, 155–156
- Fukushima Daiichi (nuclear reactor), 156
- Fukuyama, Francis, 608
- Fulton, Robert, 152
- Gallagher, John, 348, 500
- Gandhi, Mohandas K. (Mahatma), 350, **406**,  
     406
- garbage (in Pacific Ocean), 76–77
- gas chambers, 424
- Gasprinski, Ismail, 477
- GDP. *See* gross domestic product (GDP)
- gender  
 and colonialism, 353, 355, 565  
 and infanticide, 192–193  
 Middle East, 481
- gender equality  
 global trends in, 40
- Middle East, 467  
 politics, 218–222  
 and totalitarianism, 456–458  
 voting rights, 626
- General Agreement on Tariffs and Trade  
 (UN), 547, 604
- General Assembly (UN),  
     297–298
- General Motors Company, 605
- genetically modified organisms (GMOs),  
     159–160
- Geneva conventions, 292–293
- genocide  
 after Holocaust, 432–435  
 Cold War, 434–440  
 Holocaust era, 423–428  
 modern world, 27–28  
 and pre-Holocaust colonialism,  
     428–432  
 problem of, 420–423
- Genocide Convention, 428
- geology, 52
- geopolitics  
 demography, 222–224, 227  
 East Asia, 493–497  
 and nationalism, 312–316
- germ theory (of disease), 263
- Germany  
 19th-century industrialization, 369  
 colonialism in Africa, 368, 562  
 farming co-operatives, 99  
 fascism in, 452–454  
 foreign labor, 490  
 industry technology, 141  
 neo-Malthusianism, 219  
 railways, 148  
 reunification of, 510  
 state expansion, 222–223
- Gibbon, Edward, 336
- Glass, Philip, 146
- global convergence limits, 38–44
- Global South hemisphere  
 demography, 201–205, **202**,  
     **204**  
 disease control, 264, 272–275
- global warming, 71–72. *See also* climate  
 change
- globalization  
 19th-century, 367  
 and disease control, 255–257  
 of health, 263–265  
 Middle East, 484–491  
 music and sports, 36–37



- new, 586, 604–606
- of technology, 161
- and the third industrial revolution, 607–608
- United States, 604–606
- GNP. *See* gross national product (GNP)
- gold
  - Africa, 569
  - Australia, 616–617
  - United States, 616–617
- Gold Coast, 576
- Goldman, Emma, 220
- Gómez, Juan Vicente, 543
- Gorbachev, Mikhail, 463
- Gorgas, William, 263
- gout (disease), 238
- government regulation
  - agricultural, 101–103
  - communications, 154
  - and disease control, 244
  - fertility control, 205
  - transportation technology, 148
- Gramsci, Antonio, 350
- Great Britain. *See* British imperialism
- Great Depression
  - and Africa, 568
  - and agricultural regulation, 101–102
  - and decolonization, 401–402
  - and GDP, 11
  - Latin America, 545–546
  - and the Nazi movement, 453
  - and the United States, 603–604
- Great Divergence, 494
- Great Leap Forward, 442, 445, 628
- Great Pacific Ocean Garbage Patch, 143
- “Great Terror,” 426, 442, 459
- Great War. *See* World War I
- Greater East Asia Co-Prosperty Sphere, 516
- Greece, 485
- Green Revolution, 91, 93, 228, 230
- Greene, William, 542
- Greenhalgh, Susan, 229
- Grenada, 239
- gross domestic product (GDP)
  - and agricultural trade liberalization, 102–103
  - China, 509, 629
  - increase since 1750, 243
  - Japan, 629
  - United States, 511, 603, 607, 608
- gross national product (GNP)
  - during Cold War, 411–412
  - United States, 599
- “Grotian notion of the ocean,” 291
- Grotius, Hugo, 287
- Groves, Leslie, 156
- Guaira Falls, 146
- Guam, 602
- guano
  - Peruvian export, 539, 618
  - United States, 598
- Guatemala
  - Cold War, 548
  - decolonization, 530
  - Mayan genocide, 434
- Guerrilla Warfare*, 549
- Guevara, Ernesto (Che), 548, 549
- gulag* (labor camps), 459, 461
- guns
  - energy of, 180, 181
  - machine, 562
  - preventing genocide, 430
  - technology, 613
- Gurr, Ted, 432
- gyre
  - Anthropocene age, 76–77
  - plastic garbage in Pacific, 143
- Habsburg Empire, 322, 324, 369, 478, 527
- hacienda. *See* plantations
- Hague Conference System, 293
- Haiti
  - decolonization, 531
  - US control, 602
- Haitian Revolution, 343, 348, 527, 587
- Hamashita, Takeshi, 497
- Hamid II, Abd al- (Ottoman sultan), 473
- Hamilton, Alexander, 372–373
- Hardt, Michael, 361
- Harff, Barbara, 432
- Harrison, Mark, 9
- Haussmann, Georges, 243
- Hawai’i
  - Kingdom of, 336
  - trade epicenter, 614
  - US control, 504, 602
- Hawaii*, 411
- Haya de la Torre, Victor Raúl, 543
- Hayami, Akira, 502
- Headrick, Daniel, 16
- health. *See also* disease
  - organizations, 227, 231, 251, 256–257, 258, 264, 265–267, 271, 275–278, 300

- health (*cont.*)  
 public agencies, 67, 246, 252, 255–256, 263, 268, 271, 272–275  
 Henderson, Donald A., 270–271  
 Herero wars, 24, 428  
 Hernández Martínez, Maximiliano, 546  
 Heywood, Linda, 557  
 Hind Swaraj movement, 348  
 Hinduism, 31, 43  
 Hitler, Adolf, 325, 343, 446–450, 453, 456, 461  
 HIV-AIDS (disease), 255, 579  
 Ho Chi Minh, 407, 572  
 Hobsbawm, Eric, 11  
 Hobson, J. A., 342  
 Hoerder, Dirk, 15  
 Hokkaido, 504  
 Holocaust, 421, 423–425, 442  
 Honduras, 531  
 Hong Kong  
   British colony, 619  
   demography, 628  
   as leading economy, 512  
   reunification of, 510  
 Hong Liangji, 212–214  
 Hoover Dam, 150  
 Hopkins, Anthony, 339  
 housing  
   lighting energy, 174–175  
   and mortality decline, 197  
   public, 151  
 Huerta, Victoriano, 542–543  
 human origins, 556–557  
 human rights law, 301–303  
 Hungary  
   Cold War, 414  
   fascism in, 454  
 Hurwitz, Jacobo, 543  
 Hussein, Saddam, 435  
 hybridization  
   in imperialism, 347  
   of plants and animals, 90–91, 159–160, **160**, 589  
 hydroelectricity, 144–147, **146**, 589  
 hydrogen bomb. *See* atomic bomb  
 I. E. DuPont de Nemours Company, 142  
 ibn Abd al-Wahhab, Muhammad, 473  
 ibn Abdullah, Sultan Muhammad, 469  
 ideology  
   communist, 443–447  
   fascist, 446–450, **449**  
 I. G. Farben (German chemical company), 142  
 illumination  
   cost of, 174–177  
 imagined communities, 30–38  
 immigration. *See* migration  
 Immigration Act of 1924 (US), 603  
 imperial web model, 338–340, 344–347  
 imperialism. *See also individual empires*  
   Anthropocene age, 69  
   and decolonization, 396–400  
   definition of, 332–341  
   and environmental impacts, 69–70  
   and families, 39  
   Japanese, 504–505  
   models of, 341–347, 358–362  
   protectorates in Middle East, 474–475  
   resistance movements, 27, 347–358  
   and self-determination, 327  
   Suez crisis marks end of, 483  
 import substitution industrialization (ISI), 546–547  
 India  
   19th-century industrialization, 379  
   Cold War, 414  
   colonialism, 336  
   decolonization, 402, 572  
   demography, **204**  
   and disease control, 272–274  
   GDP (GDP adjusted), 511  
   housing in, 151  
   irrigation engineering, 147  
   neo-Malthusianism, 219  
   nuclear weapons, 157  
   population policy, 227–229  
   resistance in, 356–357  
   textiles, 360  
 Indian Citizenship Act (1924), 596  
 Indian Rebellion (1857–1858), 355  
 Indians (US), 588, 590, 594–596  
 indigenous peoples  
   and 18th-century colonialism, 216–218, 352  
   in Africa during colonialism, 570–571  
   depopulation of, 216–218  
   East Asia, 620  
   and genocide, 423, 429–430  
   Latin America, 526–529  
   and property rights, 96–97  
   United States, 588, 590, 594–596  
 Indonesia  
   Cold War, 413, 434  
   communism in, 451  
 Industrial Revolution  
   German, 369  
   public and private sector activity in, 621  
   river engineering in, 144

- and technology, 11–12, 136–138, **138**, **139**, 589
- third, 607–608
- industrialization. *See also* manufacturing
  - 19th-century, 201, 367–372
  - agricultural, 158–160, **160**, 589
  - British, 590
  - Chinese, 381–382, **382**, 384, 589, 628
  - and communism, 445
  - East Asia, 623
  - and fossil fuels, 54–63, **59**
  - ISI, 546–547
  - Japan, 621–622
  - Latin America, 538
  - leading to imports, 14
  - Middle East, 490
  - shipbuilding, 618, 626
  - and tuberculosis, 251–253
  - United States, 598–599, 607
- infanticide
  - in China, 229
  - and demographic transition, 192–193
- inflation
  - Germany, 453
  - Japan, 627
  - Latin America, 532, 545
  - United States, 606
- influenza (disease), 246–248, **247**, 255–256, 589
- innovation. *See also* technology
  - adoption rate of, 92–93
  - agricultural, 90–92
  - cotton gin, 590
  - cotton textile, 11–12
  - and modern media, 174
  - steamship design, 618
  - US world leaders, 373
- intellectualism
  - 18th-century, 357–359
  - Latin America, 527
- intendancy system (Latin America), 527
- “internal colonialism,” 340–341
- International Atomic Energy Agency (IAEA), 300
- International Civil Aviation Organization (ICAO), 300
- International Court of Justice (UN), 297
- International Criminal Court (ICC), 302, 437
- International Exhibition (1862), 142
- International Federation of Eugenics Organizations (IFEEO), 223
- international law
  - definition, 286
  - and genocide, 437, 438
  - and global institutions, 293–301
  - and human rights, 301–303
  - and multilateral conventions, 292–293
  - and nationalism, 324–328
  - neomedieval system, 303–305
  - and Peace of Westphalia, 286–290
  - treaties and customs in, 290–292
- International Law Commission (ILC), 297–298
- International Maritime Organization (IMO), 300
- International Monetary Fund (IMF), 300, 486, 511, 547, 551, 553
- International Peace Conference, 292
- International Planned Parenthood Federation, 227
- International Union for the Protection of New Varieties of Plant (UPOV), 94
- International Whaling Commission, 76
- Internet, 42, 607, 608
- Iran
  - 18th-century, 469
  - 19th-century, 474
  - 20th-century, 480
  - 21st-century, 490
  - Cold War, 485
  - Constitutional Revolution, 483–484
  - oil production, 482, 488, 606
  - social reform, 486
- Iraq
  - Cold War, 485
  - genocide in, 435
  - monarchy overthrow, 486
  - religion in, 480
- Ireland, 592
- iron
  - European 19th-century industrialization, 370
  - and fossil fuel use, 54
  - power density of, 171
  - US industrialization, 373
- Iroquois Confederacy, 335, 587
- irrigation
  - hydrological engineering, 145, 146
  - and salinization, 103
- ISI. *See* import substitution industrialization (ISI)
- Islam
  - 18th-century, 472–473
  - 19th-century, 473–478
  - 20th-century, 480–481, 483–484
  - in Africa, 561
  - export of, 43
  - organizations, 486
  - pilgrimages and disease, 242

- Islam (*cont.*)  
     role in ending Cold War, 417–418  
     as a world religion, 31–32  
 Islamic Republic of Iran, 487  
 Islamic Salvation Front, 487  
 Ismail, Tareq, 467  
 isolationism (US), 603–604  
 Israel  
     establishment of, 480  
     nuclear weapons, 157  
 Itaipu (music), 146  
 Itaipu Hydroelectric Power Station, 146  
 Italy  
     colonialism in Africa, 368  
     fascism in, 222, 452–454, **453**, 455, 461, 589  
 Iturbide, Agustín de, 532–533  
 Ivory Coast, 402  
 J. Walter Thompson (company), 605  
 James, C. L. R., 343  
 Japan  
     18th-century, 193–194, 499, 612  
     abortion in, 224  
     agriculture, 99, 101–102  
     Cold War, 408  
     colonialism, 506–508, 623  
     demography, 226–227, 611  
     East Asian regional dynamics, 508–509, 621–622  
     economics, 509, 512, 518–519  
     energy consumption, 164, **178**, 179  
     GDP (PPP adjusted), 511  
     government promotion of industry, 384–385  
     imperialism, 41–42, 313–315, **337**  
     independence from Western powers, 369  
     self-strengthening policy, 380–392  
     state expansion, 222, 624–625  
     treaty ports, 620  
     World War II, 156–157, 403, 624–625, 626  
 Java War, 23–24  
 Jefferson, Thomas, 258, 262, 265, 279, 372–373, 540, 595  
 Jenner, Edward, 197, 251, 258, 261–262, 265  
 Jews  
     and fascism, 448, 458–459  
     and Zionism, 480  
 jihad, 487, 561  
 Johnson, Lyndon, 268–270, 275  
 Jordan, 486  
 Josephson, Paul, 11, 26  
 Julius Caesar, 23  
 Kahlo, Frida, 544  
 Kaiser, Henry, 626  
 Kamehameha I, King of Hawai'i, 336  
 Kashani, Abu al-Qasim, 484  
 Katö, Shidzue, 228  
 Kaufman, Viola, 219  
 Kemal, Mustafa (Atatürk), 480  
 Kenya, 404  
 Kenyatta, Jomo, 575  
 Khalidiyyah movement, 472  
 Khamenei, Ali (Supreme Leader of Iran), 485  
 Khan, Agha Muhammad, 469  
 Khan, Reza, 480  
 Khan, Sayyed Ahmad, 477  
 Khmer Rouge, 434–435  
 Khomeini, Ali (Supreme Leader of Iran), 487  
 Khrushchev, Nikita, 151, 265  
 Kim Il Sung, 141  
 King, Russell, 98  
 Kinsey, Danielle, 28, 32  
 Kirchner, Néstor, 553  
 Klein, Christina, 410–411  
 Koch, Robert, 249, 263  
 Korea  
     Chinese and Japanese competition for, 389–390  
     Chinese control, 510–511  
     Cold War, 403, 413  
     exports to Japan, 506  
     independence from Western powers, 369  
     Japanese control, 314, **337**, 504  
     tributary-trade system, 499  
 Korean War, 515–516, 604, 627  
 Kuçuk Kainarji, Treaty of, 471  
*kulaks*, 425, 459  
 Kuomintang (KMT), 628  
 Kurchatov, Igor, 157  
 Kuwait, 490  
 labor  
     African slave, 558, 590–591  
     agricultural, 13–14, **85**, 85–86, 589  
     animal, 12–13  
     child, 137  
     communist redemption through, 459–460, 461  
     East Asia, 384–385  
     gradations of, 18–19  
     Latin American industrial, 541  
     Middle East, 490  
     migration, 241–242  
     United States, 372, 592–594, 601–602

- land
  - collectivization, 96, 456
  - communist reform, 459–460
  - empires, 333
  - Latin America, 537
  - as a limit to population growth, 214
  - rights, 95–97
- Landes, David, 500
- Lane, Franklin, 410
- languages
  - and assimilation, 506, 507
  - in colonial African, 565
  - and modern nationalism, 315
- Latin America
  - 18th-century, 526–529
  - 19th-century, 528, 529–535
  - 19th-century economy, 373–374
  - 20th-century, 541–544
  - agricultural regulation, 102
  - and Cold War, 547–551, 552
  - colonialism, 352
  - demography, 204
  - disease control, 263–264
  - export economies, 535–539, 544–547
  - genocide, 430
  - neo-colonialism, 539–541
  - neo-Malthusianism, 220
  - populism, 551–553
  - regionality in, 44
- Lausanne, Treaty of, 427
- law
  - international, 294–297
  - of nature, 286–288,
- League of Nations, 294–297, 324–325, 326, 327, 420, 603
- League of Nations Health Organization (LNHO), 264, 294–297
- Lebensraum*, 222–223
- Lee, James, 229
- Lees, Lynn Hollen, 11
- legal positivism, 288–290, 535–536
- Leguía, Augusto, 546
- Lemkin, Raphael, 420–422, 438
- Lenin, Vladimir, 141, 220, 318, 342, 444–445
- Lepgold, Joseph, 303
- Levene, Mark, 26–28, 33
- Levy, Jack, 22
- Li Ruzhen, 40
- Liberia, 562
- Libya, 481, 486
- life expectancy
  - 19th and 20th centuries, 8–9
  - Anthropocene age, 67
  - developing countries, 202, 202–205, 589
  - Europe, 199–200
  - modern world, 189–192, 191, 589
- lighting, incandescent, 174–175, 175, 589
- Limits to Growth, The*, 230
- Lin Zexu, 616
- Lincoln, Abraham, 540
- List, Friedrich, 373
- literacy. *See* education
- Little Ice Age, 8, 71
- Livi-Bacci, Massimo, 8
- “living space” argument, 222–223
- loans. *See also* credit
  - for industrialization, 374
  - Latin America, 532–533, 545
- Locke, John, 527
- Lotus, The*, 289
- Louis XVI, King of France, 587
- Louisiana Purchase, 594, 614
- L'Ouverture, Toussaint, 3
- Luddism, 140
- lumber. *See* wood
- Lumumba, Patrice, 413
- lung sickness (animal disease), 248
- Ma Mingxin, 472
- Ma Yinchu, 229
- MacArthur, Douglas, 625, 626
- Machado, Eduardo, 543
- Machado, Gerardo, 546
- Machado, Gustavo, 543
- Madero, Francisco, 542–543
- Mahmud II (Ottoman sultan), 473
- malaria (disease), 238, 253, 254, 263, 267
- Malaria Eradication Program (MEP), 266–267, 268, 275
- Malaya, 402
- Malthus, Thomas, 139, 212–216
- Malvinas Islands. *See* Falkland Islands
- Mandela, Nelson, 578
- Manela, Erez, 9, 21, 326
- Manhattan Project, 156, 161
- Mani, Lata, 357
- Manifest Destiny, 594
- manufacturing. *See also* industrialization
  - assembly line, 137–138, 139
  - and imagined communities, 34, 35–36
  - ISI, 547
  - and migration patterns, 593
  - textile, 11–12, 137, 360, 372, 384, 386, 590, 596, 598, 608
  - United States, 596

- Mao Zedong, 141, 229, 407, 445, 459–460, **460**, 461, 589, 628  
 Marathas, 8  
 Marcos, Ferdinand, 413  
 Marcus Aurelius, 174  
 Mariátegui, José Carlos, 543  
 marketing (mass), 34–35, 102, 154, 228, 491, 564  
 marriage, 195–196, 199  
 Marriage Law (1950), 457  
 Marshall Plan, 627  
 Martí, José, 536  
 Marx, Karl, 140, 141, 215, 444  
 Marxism  
     and China, 380, 497  
     and nationalism, 317  
     and technology, 140–141  
 mass consumerism, 605  
 mass marketing, 102, 154, 228, 491, 564  
 mass murder. *See* genocide  
 Mather, Cotton, 260  
 Mau Mau rebellion, 404, 574, 575  
 maximum power (prime movers), 172–173, **173**  
 McMahon Line, 415  
 McNeill, John, 8, 10, 28  
 Mearsheimer, John, 523  
 Meiji Restoration, 380–392, 621, 622  
*Mein Kampf*, 448, 453  
 Mella, Julio Antonio, 543  
 Meng, Yue, 382  
 mercantilism, 527, 588  
 merchant marine (US), 600  
 metropole. *See* colonialism  
 Mexican Revolution, 538, 541–544,  
 Mexico  
     warfare in, 534, 540–541  
     decolonization, 532–533  
 Michener, James, 411  
 Microsoft, 513  
 Middle East  
     18th-century, 469–473, **470**, 589  
     19th-century, 473–478, **479**  
     20th-century, 478–489, **489**, 589  
     21st-century, 489–491  
     in modern era, 467–469  
     regionality in, 42–43  
 migration  
     19th-century European, 201  
     African, 564  
     and cheap energy, 58  
     and disease transmission, 241–242  
     East Asia, 503–504, 505  
     global predictions, 208–209  
     intercontinental, 75–76  
     Japanese control, 505  
     labor in Middle East, 490  
     Pacific Rim, 616–617  
     United States, 592–594  
 Mill, John Stuart, 218–221  
 mining  
     Africa, 568–569  
     for cheap energy, 58  
     coal, 168–169  
     and colonialism, 356  
     East Asia, 623  
 Ministry of International Trade and Industry  
     (Japan), 627  
 minorities. *See* ethnicity; indigenous peoples  
 Mississippi River (US), 144–145, 215  
 Mistral, Gabriela, 543  
 mobile phone technology, 153  
 Modotti, Tina, 543  
 Mongkut, King of Siam, 377  
 Mongols, 5  
 Monroe Doctrine, 326, 539, 588  
 Montagu, Mary Wortley, 260–261  
 Montesquieu, 35, 527  
 Moore, Hugh, 227  
 Morales, Evo, 553  
 Morocco, 469, 474–475, 483, 486, 487  
 Morse code, 152  
 mortality  
     Anthropocene age, 66  
     developing countries, **202**, 202–205, 589  
     from disease, 254  
     Global North hemisphere, 198–201  
     modern world, 8–9, 26–28, 189–192, **191**,  
     196–197, 589  
 Mosaddegh, Mohammad, 482, 548  
 Mothers of the Plaza de Mayo, 551  
 Mount Toba, 80  
 Mughal Empire, **333**  
*mujahidin* (Muslim guerrilla warriors), 417, 487  
 multilateral treaties  
     international law, 292–293  
     United States, 604  
 Münster, Treaty of, 292  
 music globalization, 37  
 Muslim Brotherhood, 483, 487  
 Mussolini, Benito, 222, 446, 452–453, **453**, 456,  
     461, 589  
 Mysore Kingdom, 336  
  
 Nadir Shah, 8  
 Nanking, Treaty of, 619  
 Nanni, Giordano, 349  
 Naoroji, Dadabhai, 342

- Napoleonic Wars, 21, 323, 471, 529, 588, 618  
 Naqshbandiyyah Tariqah, 472, 477  
 Nasir, Jamal Abd al-. *See* Nasser, Gamal Abdel  
 Nasser, Gamal Abdel, 402, 416, 483, 485  
 National Salvation Party, 487  
*National System of Political Economy, The*, 373  
 nationalism  
   19th-century Middle East, 476–478  
   20th-century, 319–324  
   characteristics of, 308–312  
   and communism, 316–319  
   cosmopolitan trans-, 463  
   definition, 306–308  
   and fascism, 447  
   global convergence and diffusion, 312–316  
   and international law, 324–328  
 Nationalist Socialist. *See* Nazis  
 nation state  
   Africa, 578–580  
   and the Cold War, 411–412  
   and imperialism, 313–316  
   and international law, 324–328  
   in Latin America, 532–533  
   and mass killings, 27–28, 432–435  
   Middle East, 480–481  
   and nationalism, 306–307  
   and new globalization, 607–608  
   political identity in, 33  
   and totalitarianism, 454–464  
   United States, 603  
   Western Europe, 310–312  
 Nazis. *See also* fascism  
   and Holocaust, 142, 421, 423–425  
   nuclear technology in, 156, 161  
 Negri, Antonio, 361  
 Nehru, Jawaharlal, 227, 416, 485  
*Nemesis* (steamboat), 616  
 neo-Malthusianism, 218–222, 225  
 Nervi, Pier Luigi, 150  
 Netherlands  
   empire, 332, 334, 337  
   neo-Malthusianism, 219  
   peat used for energy, 504–505  
   Southeast Asia, 612, 620  
 Neutrality Acts of 1935–1937 (US), 604  
 New Deal (US), 602, 606  
 “new imperial history,” 338–339  
 New Population Theory, 229  
 New South (US), 597  
 New Zealand, 430  
 Newcomen, Thomas, 175  
 Nicaragua  
   canal, 541  
   decolonization, 531  
   revolutionary movement, 550  
 Nicholas II, Russian Tsar, 292  
 Nigeria, 402, 560, 561, 576  
 Nkrumah, Kwame, 404, 485, 574  
 Nokia Corporation, 513  
 nomadic peoples  
   marginalization of, 5  
   war success, 7–8  
 non-aligned movement (NAM), 485–486  
 non-governmental organizations (NGOs), 607  
 Nordhaus, William, 175  
 North America  
   demography, 204  
   genocide, 430  
 North American Free Trade Agreement (NAFTA), 551, 608  
 North Atlantic Treaty Organization (NATO), 604  
 North Korea  
   communication technology to control citizens, 152  
   communism in, 319  
   GDP, 511  
   nuclear weapons, 157  
 Notestein, Frank, 225–227  
 nuclear technology, 155–158  
 Nursi, Bediuzzaman Said, 484  
 nutrition  
   and decline in mortality, 9  
 Obama, Barack, 520  
 Obregón, Álvaro, 543  
 oil age (Anthropocene epoch), 52–53, 56, 57  
 oil industry  
   Latin America, 482, 552  
   Middle East, 43, 488–489, 605–606  
   Soviet Union, 481  
 Okinawa, 388, 504  
 Olmstead, Alan, 92–93  
 One-Child Policy, 229  
 Operation Barbarossa, 424  
 opium  
   Bengali, 616  
   British, 619  
   China, 383  
 Opium Wars, 23, 25, 503, 613, 619  
 Oppenheimer, J. R., 156  
 Oregon Treaty, 614  
 Organization of Arab Petroleum Exporting Countries (OAPEC), 488  
 Organization of the Petroleum Exporting Countries (OPEC), 488

- Orientalism*, 358  
*Origin of the Family, Private Property and the State*, 218  
 Orozco, José Clemente, 543  
 Ortega, Daniel, 553  
 Orwell, George, 354  
 Osnabrück, Treaty of, 292  
 O'Sullivan, John L., 540  
 Ottoman Empire  
   18th-century, 469–473, **470**, 589  
   19th-century, 473–478, **479**  
   19th-century industrialization, 370–371  
   challenge by nomadic people, 8  
   competition with neighbors, 368  
   controlling seaways, 335  
   end of, 478  
   slavery in, 351–352  
   territory of, **333**  
   tribal breakout against, 7–8  
 outputs (agricultural), 99–100  
 Overmyer-Velázquez, R., 353  
 overseas empires (18th-century), 332, **334**  
 Overy, Richard, 26
- Pacific Rim  
   colonialism, 332, **334**, 504–505  
   demography, **189**, **204**  
   economic development, 621–623  
   economic history of, 611–614, **615**  
   global processes in, 43–44  
   migration, 592–594  
   postwar economy, 627–630  
   treaty ports, 619–621  
   UN military bases in, 521  
   and United States, 614–619  
   World War II, 624–626  
 Paine, Thomas, 527  
 Pakistan  
   Cold War, 414, 485  
   disease control, 266  
   ethnic genocide in, 433  
   nuclear weapons, 157  
 palm oil, 560  
 Panama Canal Zone, 263, 541, 602, 625  
 Paris Peace Conference, 421  
 Park Chung-hee, 413  
 Parkesine (polymer), 142  
 Pasteur, Louis, 197, 263  
 Paxton, Nancy, 355  
 Peace of Westphalia, 287, 289  
 Peakman, Julie, 38
- peasantry  
   as communist revolutionary class, 445, 462  
   in Great Leap Forward, 459–460, **460**  
 peat energy, 504–505  
 Peattie, Mark, 623  
 Pedro, King of Brazil, 532  
 peer groups, 35–36  
 People's Republic of China. *See* China  
 Perkin, William Henry, 141  
 Permanent Court of International Justice, 289  
 Perón, Evita, 546  
 Perón, Juan, 546  
 Perry, Matthew, 613, 616, 619, 621  
 Peru  
   communism in, 451  
   decolonization, 530  
   export boom, 539  
 Peruvian Socialist Party, 543  
 Peter the Great (Russia), 371  
 Petersen, Roger, 324  
 Petróleos Mexicanos (PEMEX), 547  
 petroleum. *See* oil industry  
 Philip of Anjou, King of Spain, 527  
 Philippines  
   decolonization, 403, 413  
   Spanish control, 332  
   US control, 314, **337**, 504, 602  
 pill. *See* fertility control  
 Pink Tide, 553  
 Pinochet, Augusto, 550  
 "Pivot to Asia," 520  
 plague (disease), 237–239, 243–246  
 Plan of Ayala, 542  
 plantations  
   during industrialization, 57  
   Latin America, 537  
   and Pacific depopulation, 217  
   settlers, 432  
   and slave labor, 360–361, 560  
 plastics, 142–143, **143**, 589  
 plate glass, 143–144  
 Plato, 291  
 Platt, D. C. M., 500  
 Platt Amendment (US), 541  
 Plaza, Salvador de la, 543  
 Pol Pot regime, 434–435  
 Poland  
   Cold War, 414  
   and genocide, 458  
   nationalism, 306  
   self-determination, 326



- policy  
 Chinese One-Child, 229  
 Russian ethnicity, 322  
 politicide. *See* genocide  
 politics  
   and birth rates, 12–13  
   and decolonization in Africa, 573–576, 576, 589  
   demographic transition, 224–230  
   environment, 230–233  
   and geography, 222–224  
   and pressure to Westernize other countries, 367–368  
   reproductive, 218–222  
   and technology, 139–141  
   world economic, 212–216  
 Polk, James, 540  
 pollution  
   automobile, 149  
   and environmental movement, 78–79  
   and industrialization, 60, 61–63, 62, 589  
   water, 76–77  
 polymers. *See* plastics  
 polyvinyl chloride (PVC), 142  
 Pomeranz, Kenneth, 494, 497, 502  
 popular sovereignty, 308–312, 315  
 population. *See* fertility control  
*Population Bomb* (pamphlet), 227, 230  
 populism (Latin America), 546, 551–553  
 Portuguese colonies, 332, 334, 335, 368, 526–529, 564, 612  
 positivism, 288–290, 535–536  
 postal systems, 152  
 power density, 170–172  
 PPP. *See* Purchasing Power Parity (PPP)  
 Prebisch, Raúl, 547  
 Prince, Mary, 349, 350  
 property rights. *See* land  
 protectorates  
   Afghanistan, 602  
   Caribbean, 602  
   Korea, 336  
   Middle East, 474–475  
 Protestant. *See* Christianity  
 proto-globalization, 19–20  
 public health agencies  
   and death rates, 67  
   disease eradication, 268, 271  
   Panama Canal Zone, 263  
   in poor and rich countries, 252  
   surveillance by, 255–256  
   and war casualties, 246  
 Puerto Rico, 337, 602  
 Purchasing Power Parity (PPP), 511  
 Qadiriyyah, 477, 561  
 Qajar dynasty, 469, 474  
 Qatar, 490  
 Qing dynasty (China)  
   18th-century, 612  
   19th-century self-strengthening, 381–392  
   collapse of, 503, 623  
   defeat of Mongols, 5  
   flood control, 623  
   genocide, 430  
   port restrictions to trade, 613  
   state expansion, 22  
   tributary-trade system, 499–500  
   war casualties, 23  
 quarantine  
   animals, 248–249  
   disease control, 238, 239–240, 263  
   and trade, 242  
 quinine, 253  
 Quwatli, Shukri al-, 483  
 race relations  
   Africa, 403–404, 569–570  
   and colonialism, 355–356  
   East Asia, 620–621  
   and fertility decline, 221–222  
   Latin America, 531–532  
   United States, 410–411  
 racism  
   and genocide, 428–430  
   Latin America, 537  
   Nazi, 448–450, 458–459  
 Radio Corporation of America (RCA), 142  
 Raffles, Stamford, 262, 618  
 railways  
   African, 564  
   Chinese, 517  
   and disease transmission, 244  
   East Asia, 623  
   energy use, 58, 173  
   German, 369  
   in Holocaust, 424  
   and imperialism, 315  
   Latin America, 536  
   mail delivery, 152  
   and shipping costs, 17  
   and technology, 141, 147–148  
   United States, 597, 616  
   and warfare efficiency, 23  
 Raleigh, Walter, 79  
 Rani of Sirmur, 353

- Rape of Nanking, 625  
 Rau, Dhanvanthi Rama, 228  
 Reagan, Ronald, 607  
 Rebec, Nicole, 42  
 Red Guards, 460, 462  
 Reed, Walter, 263  
 refrigeration technology, 147  
*Regeneración*, 542  
 regionalization  
   East Asia, 496–522, **498**  
   historic connections in, 42–44  
   Latin America, 44, 531  
   Middle East, 42–43  
   United States, 44  
 Reid, Anthony, 497  
 religion  
   central to many regions, 43  
   Middle East, 468, 472–473, 480–481, 483–484  
   and totalitarianism, 455, 462  
   world, 31–33  
 reproduction  
   and families, 39  
   politics, 218–222, 231  
   sexuality decoupled from, 38  
 research and development (R&D)  
   birth control, 227  
   cost of agricultural, 93  
   technology, 141–144, **143**, 589  
 resistance. *See* revolutions  
 revolutions  
   Atlantic, 3, 20–21  
   Caribbean, 571  
   communist, 443–446  
   Middle East, 483–484  
   Russian, 442, 450, 474  
   in totalitarianism, 458–461  
   US, 527, 587  
 Reza Shah, 480, 484  
 Rhode, Paul, 92  
 Ricardo, David, 535, 536  
 Rieger, Bernhard, 34  
 rinderpest (disease), 249, 278  
 river engineering technology, 144–147, **146**, 589  
 Rivera, Diego, 543, 544  
 Robin, Paul, 220  
 Robinson, Ronald, 348, 500  
 Rockefeller Foundation, 93, 227, 231, 246, 263–264  
 Rodríguez, Jaime, 20  
 Roma (gypsies), 425, 458  
 Roman Catholics  
   and abortion, 224  
   expulsion of Jesuits from Latin America, 527  
   and family planning, 227  
   and fascism, 455  
   as imperial web, 339  
   in Latin America, 534  
 Romania, 414, 454  
 Roosevelt, Franklin, 156  
 Roosevelt, Theodore, 598  
 Rosas, Juan Manuel de, 534  
 Roshwald, Aviel, 27, 33  
 Rousseau, Jean-Jacques, 527  
 Roy, Rammohan, 20  
 Royal Agricultural Society of England, 93  
 Russia. *See also* Soviet Union  
   life expectancy in, 67, 207  
 Russian Empire. *See also* Soviet Union  
   19th-century industrialization, 371  
   abolition in, 19  
   advance of sedentary over nomadic peoples, 5  
   end of, 478  
   ethnicity and policy, 322  
   following Western energy uses, 164  
   genocide, 430–431  
   Islam, 477  
   lumber trade, 335  
   property ownership in, 96  
   railways, 148  
   territory of, **333**  
   violence in, 459  
 Russo-Japanese War, 415  
 Russo-Turkish War, 471  
 Rwanda genocide, 436–437, 438  
 Ryūkyū kingdom, 388, 499  
  
 Sadat, Anwar, 487  
 Saenz Peña, Roque, 544  
 Sahagún, Bernardino de, 353  
 Said, Edward, 358  
 Said, Khaled, 491  
 Saint-Domingue. *See* Haiti  
 Samsung Group, 513, 515  
 San Francisco Peace Treaty system (SFPT), 519–520, 522  
 Sandinista National Liberation Front, 550  
 Sanger, Margaret, 220, 228  
 sanitation  
   and death rate, 9, 67  
   disease control, 240, 245  
 Santa Anna, Antonio López de, 533  
 Sargent, Daniel, 41  
 Sarmiento, Domingo Faustino, 537  
 sati (Indian funeral tradition), 356–357

- Satia, Priya, 507
- Saudi Arabia  
     foreign labor, 490  
     oil production, 482  
     origins of, 478  
     religion in, 480  
     social reform, 486
- Saul, S. B., 500
- Sauvy, Alfred, 226
- science  
     and disease control, 245–246  
     globalization of, 20–21
- Scott, James C., 348, 507
- Sección neo-Malthusiana de Cuba*, 220
- Second World War. *See* World War II
- Security Council (UN)  
     China inclusion, 510, 517  
     and genocide, 437  
     human rights tribunals, 302–303  
     power of, 298–299
- Selden, Mark, 43–44
- self-determination  
     Middle East, 480–481, 483  
     and nationalism, 326–328  
     United States and Soviet Union having, 408–411
- self-strengthening (East Asian), 380–392
- Selim III (Sultan of Ottoman Empire), 469, 473
- Senghor, Léopold, 574
- Serbian Uprisings, 476
- Seven Years' War, 3, 5, 21, 237, 323, 527
- Severe Acute Respiratory Syndrome (SARS), 256
- sexual diversity, 38
- Shaka (Zulu king), 560–561
- Shambaugh, David, 521
- sharecropping, 98
- Sharpe, Jenny, 355
- Shi'ites, 484
- Shining Path (Peruvian Maoist movement), 451
- shipbuilding industry, 618, 625
- shipping  
     Chinese tributary trade, 501  
     costs falling, 17  
     and fossil fuel use, 58  
     United States, 589
- "shock cities," 58–61, 60, 589
- "Shooting an elephant" (essay), 354
- Siam  
     19th-century, 337  
     colonialism of, 314  
     independence from colonialization, 369, 376–379, 378, 589, 620
- Siemens Corporation, 142
- Sieyès, Abbé, 311
- silver  
     and China, 500, 503  
     East Asia need for, 616  
     Habsburg Empire squandering of, 527
- Singapore, 512, 618
- Sinha, Mrinalini, 344
- Sino-French War, 25
- Sino-Japanese War, 382, 623
- Siquieros, David Alfaro, 543
- slavery. *See also* abolitionism; forced labor;  
     indigenous peoples  
     Africa, 557–559  
     Brazilian, 339–340  
     British colonialism, 343, 360–361  
     coolies, 241–242  
     cultural differences causing, 351–352  
     Haitian Revolution, 587  
     Latin America, 532  
     and migration, 75–76  
     and plantation complex, 18–19, 58  
     and property rights, 95  
     United States, 373, 590–591, 596–597  
     world demography, 194–195
- sleeping sickness (disease), 375
- smallpox (disease), 21, 216, 250–251, 258–279
- Smallpox Eradication Program (SEP), 270–272, 278–279
- Smil, Vaclav, 10
- Smith, Adam, 629
- Smuts, Jan, 569
- Social Darwinism, 537
- social reform  
     communism as, 450–452  
     fascism as, 452–454, 453, 589  
     Middle East, 486  
     United States, 601
- socialism  
     and eugenics, 223–224  
     and fascism, 447  
     Middle East, 486  
     and nationalism, 317–318  
     political identity in, 33, 215  
     United States, 601
- Socialist Party of America, 601
- solar energy regime, 53
- soldiers. *See* warfare
- Somoza Debayle, Luis, 549
- Somoza García, Anastasio, 546, 550

- Sony Corporation, 513, 515
- South Africa  
capitalism in, 568–569, 573  
irrigation engineering, 146  
political reform in, 577–578  
race relations, 403–404
- South Asia  
19th-century industrialization, 379  
British imperialism, 313  
British withdrawal from, 403  
genocide in, 439  
population control, 223  
war casualties, 22
- South Korea  
car industry, 627  
GDP (PPP adjusted), 511  
as leading economy, 512
- Southeast Asia  
19th-century agricultural export, 376–379  
British colonialism, 3, 6  
territorial consolidation, 6
- Southeast Asia Treaty Organization  
(SEATO), 604
- Southern hemisphere demography, 201–205,  
202, 204, 589
- sovereignty, 288–290, 303–305, 308–312, 315
- Soviet Union. *See also* Russia  
and abortion, 224  
collapse of, 436, 485, 495  
disease in, 270–272  
genocide, 425–426, 432  
nuclear technology in, 155, 157, 158  
oil production, 481  
public housing in, 151  
self-determination, 408–409  
technology to control citizens, 152, 161
- Spanish–American War, 541
- Spencer, Herbert, 535, 537
- Spivak, Gayatri, 353
- Stalin, Joseph, 141, 157, 318, 425–426, 445, 457,  
461
- Stanziani, Alessandro, 18, 20
- state expansion  
Chinese, 6–7, 493, 501–502  
East Asian, 388–390  
Japanese, 624–625  
United States, 540–541, 588, 594–596
- steam power  
and disease transmission, 239–240  
mail delivery, 152  
performance, 148, 175–176  
rise of, 137, 138  
shipping, 147, 613, 618
- Steamboat Act (1838), 148
- Stearns, Peter, 39
- steel (US), 608
- Stoler, Ann L., 341
- Strayer, Robert, 27, 33
- Suárez, Francisco, 287
- submarines (nuclear), 158
- Suez Canal, 242, 475, 618
- Suez crisis, 41, 402, 483
- Sufi brotherhoods, 43, 472, 484
- Sugihara, Kaoru, 11, 497, 502, 516
- Suharto regime, 434
- Sukarno, 413, 485, 572
- Suleiman (Ottoman sultan), 474
- superpowers. *See* Cold War
- Supreme Court (US), 289
- swaraj* (Indian self-rule), 406
- Sweden, 219
- swine flu, 256
- Syria, 471–472, 483
- Szilard, Leo, 156
- Taiping Rebellion, 623
- Taiwan  
China leading trade partner, 513  
exports to Japan, 506  
GDP (PPP adjusted), 511  
Japanese control, 314, 337, 504, 623  
as leading economy, 512  
in WTO, 513
- Tana Li, 501
- Taylor, Timothy, 37
- Taylor, Zachary, 540
- “technologies of rule,” 349–352
- technology. *See also* innovation  
agricultural, 90–95, 103, 158–160, 160, 589  
building materials, 149–151  
communication, 33, 151–154, 562, 600, 618  
computer, 154  
concern about, 139–141  
East Asia importing Western, 381–392  
and energy usage, 54–55, 56, 58  
engine power, 137–138, 139  
and families, 39  
and government, 161  
and human energy usage, 10–12  
nuclear, 155–158  
preventing genocide, 430  
and R&D, 141–144, 143, 589  
river engineering, 144–147, 146, 589  
and trade expansion, 16–17  
transportation, 147–149  
warfare, 26

- telegraph, 152, 536, 562, 600, 618
- telephone, 153–154
- Tennessee Valley Authority (TVA), 146
- Teskilati Mahsusa*, 427
- Texas
  - annexation to US, 540
  - decolonization, 530
- Texas fever (disease), 249–250
- textile industry
  - China, 384
  - India, 360
  - and Industrial Revolution, 11–12, 137
  - Japanese, 386
  - US, 372, 590, 596, 598, 608
- TFP. *See* total factor productivity (TFP)
- Thailand. *See* Siam
- Thatcher, Margaret, 551
- thermodynamic laws, 165, 182
- “third world,” concept of, 226, 268
- Thirty Years’ War, 21, 288
- Thornton, John, 557
- Three Gorges Dam, 145–146, 146, 589
- Three Mile Island (nuclear reactor), 156
- “Three worlds, one planet” (article), 226
- Tiananmen Square massacre, 42
- Tibet, 433
- Tijaniyya, 561
- Tilly, Charles, 310
- Tito, Josip Broz, 415, 485
- tobacco, 588
- Tokugawa shogunate (Japan), 193–194, 387, 621
- Torroja, Eduardo, 150
- total factor productivity (TFP), 88–89, 89, 589
- totalitarianism, 454–464 *See also*
  - authoritarianism
- Touré, Ahmed Sékou, 404
- Toynbee, Arnold, 428
- tractor technology, 159, 172, 173
- trade
  - 19th-century, 367, 589
  - African slave, 557–559
  - agricultural commodity, 99–100
  - diasporas, 564
  - and disease transmission, 239–240, 244, 248–249
  - East Asian, 514, 516
  - intercontinental, 16–18, 19–20
  - Latin America, 546
  - Middle East, 469, 472, 475
  - state restrictions on, 102–103
  - tributary, 497–503
  - United States, 599–601, 604, 607
  - world, 611
- Transactions* (journal), 260
- transportation
  - power density, 172, 173
  - technology, 147–149
- treaties
  - and international law, 290
  - multilateral, 292–293
- treaty ports, 619–621
- “tribal breakout,” 7–8
- tribunals (human rights), 302–303
- tributary-trade system, 497–503
- Trotsky, Leon, 544
- Trujillo, Rafael, 546
- tuberculosis (disease), 251–253
- Tunisia, 475, 487, 490
- Turkey
  - 20th century, 480, 484
  - 21st century, 490
  - Cold War, 485
  - democracy, 487
  - Islamic movements, 486
  - and nationalism, 321
  - Young Turks, 474
- Tyler, John, 540
- typhus (disease), 238
- Tyrrell, Ian, 44
- Ubico, Jorge, 546, 548
- Ukraine, 67
- ulama (religious scholars), 483–484
- Umar, El Hajj, 561
- unions (trade)
  - Japan, 627
  - United States, 601
- United Arab Emirates, 490
- United Fruit Company, 538, 548
- United Kingdom. *See* British imperialism
- United Nations
  - creation of Israel, 488
  - disease control, 269
  - Economic Commission for Latin America, 547
  - General Assembly, 297–298
  - and genocide, 422–423, 428
  - Human Development Index, 512
  - International Court of Justice (ICJ), 297
  - internationalization, 604
  - population division, 226
  - represents decolonization goals, 407
  - Security Council, 298–299
  - world population forecast, 103

- United Nations Educational, Scientific and Cultural Organization (UNESCO), 300
- United States
  - census, 213–214
  - and China, 509, 517
  - Civil War, 23, 593, 596–597
  - colonialism, 312–314, 337
  - connections to global history, 585–586
  - decolonization, 586–588
  - demography, 189
  - disease control, 267–270
  - and East Asia, 521–522
  - economics, 367, 504–505, 588–590, 599–601, energy, 155, 178, 481, 604–606
  - environment, 597–598
  - foreign investments, 510, 514–515, 538
  - gold, 616–617
  - hegemony, 493, 608–609
  - and indigenous people, 216
  - industrialization, 372–373, 598–599
  - isolationism, 603–604
  - labor movement, 601–602
  - migration patterns, 592–594
  - military bases, 602–603
  - new globalization, 607–608
  - and Pacific Rim, 614–619
  - self-determination, 409–411
  - slavery, 590–591
  - state expansion, 540–541, 588, 594–596
  - trade deficit, 514
- Universal Declaration of Human Rights, 297, 301
- urbanization. *See also* cities
  - 20th-century, 12
  - Anthropocene age, 67–68
  - and environmental destruction, 60, 61–63, 62, 597–598
  - and fertility control, 197
  - Middle East, 467, 481, 489–490
  - and nationalism, 322
- Uruguay
  - decolonization, 530
  - foreign trade, 545
  - neo-Malthusianism, 220
- vaccinations
  - and cultural traditions, 272–275
  - disease control, 250–251, 259–263
  - manufacturing, 270–272
  - and mortality decline, 197
- Vail, Alfred, 152
- van der Veer, Peter, 31
- Vargas, Getúlio, 546
- variolation. *See* vaccinations
- Vasconcelos, José, 543
- Velvet Revolution, 42
- Vendée genocide, 432–433
- Venediktov, Dmitry, 271
- Venezuela
  - decolonization, 530
  - oil production, 482
- Versailles, Treaty of, 294, 603
- video games, 338
- Vietnam
  - communism in, 319, 451
  - GDP (PPP adjusted), 511
  - irrigation engineering, 147
  - lack of public housing in, 151
  - reunification of, 510
  - tributary-trade system, 499–500
- Vietnam War, 403, 404, 412, 434
- Villa, Pancho, 542–543
- Vindication of the Rights of Woman*, 40
- Vitoria, Francisco de, 287
- Voll, John Obert, 42–43
- Wafd (Egyptian nationalist party), 483
- Wahhabi movement, 43, 473, 477–478
- Walmart, 515
- Wang Feng, 229
- War of 1812, 588
- War of the Reform, 535, 536
- War of the Spanish Succession, 527
- War on Terror, 487
- warfare
  - Anthropocene age, 70–71
  - and beginning of modern history era, 3–8
  - casualties, 21–22
  - colonial, 504–505
  - computers in, 154
  - and disease transmission, 239
  - East Asia territorial, 519–521
  - European 18th-century, 502
  - global connections in, 21–29
  - guerrilla, 549
  - Japanese, 506–508
  - Latin America, 534–535
  - League of Nations, 296–297
  - in Middle East and Central Asia, 515–516
  - post-Cold War among decolonized states, 415–416
  - Qing dynasty, 502
  - weapons energy, 155–158, 179–180, 181
- wars. *See* warfare
- Warsaw Pact, 319

- Washington, George, 3  
 Washington Consensus, 551  
 Wasserstrom, Jeffrey, 42  
 water  
   coastal navigation, 613  
   pollution, 62, 76–77  
 Waterhouse, Benjamin, 262  
 Watt, James, 137, 176, 267  
 weapons  
   energy, 179–180, 181  
   guns, 156–157  
   manufacturing, 25  
   nuclear, 156–157  
 “weapons of the weak,” 348–349  
 Webster, Robert, 256  
 West Africa  
   and disease transmission, 272–275  
   French colonialism in, 351  
   modern labor movements in, 404  
   slave trade, 557–559  
 West Indies, 571, 591, 596  
 Western Europe  
   18th-century East Asia comparable to, 497–499  
   death control in Anthropocene, 67  
   energy consumption, 179  
   energy use transitions, 164  
   property ownership in, 95  
 Westinghouse Electric, 142  
 Weston, Edward, 543  
 wetlands drainage, 73  
 whaling  
   and extinction, 75–76, 76  
   importance of oil, 589  
 “What is the Third Estate?” (pamphlet), 311  
 wheat  
   export of, 618  
   United States, 588  
 Wheeler, Charles, 501  
 White Lotus Rebellion, 22  
 Wiesner-Hanks, Merry, 11  
 wildlife. *See* animals  
 Wilhelm II, German emperor, 431  
 Williams, Eric, 343  
 Wilson, Woodrow, 324, 326  
 Winners, Langdon, 140  
 Witte, Sergei, 371  
 Wollstonecraft, Mary, 40  
 Wong, R. Bin, 32, 494, 497  
 wood. *See also* deforestation  
   consumption, 177  
   energy density of, 168–169  
   power density of for urbanization, 170–172  
   and urbanization, 597  
 workforce. *See* labor  
*World and Africa, The*, 556  
 World Bank, 300, 339, 547  
 World Court, 294–295  
 World Health Assembly. *See* World Health Organization  
 World Health Organization (WHO), 227, 231, 251, 256–257, 258, 264, 265–267, 271, 275–278, 300  
 World Intellectual Property Organization (WIPO), 300  
 World Meteorological Organization (WMO), 300  
 World Organization for Animal Health, 257  
 World Trade Center (US), 487  
 World Trade Organization (WTO), 250, 257, 300, 513, 517  
 World War I  
   and Bolshevism, 451  
   and communism, 317–318  
   decolonization, 401  
   disease control, 264  
   German factories, 142  
   Latin America, 545  
   and nation state, 324  
   transportation, 148  
   US involvement, 603  
 World War II  
   decolonization, 402–407, 406, 589  
   demography, 63, 225  
   and fascism, 442, 463  
   and GDP, 11  
   and Japan, 392, 505  
   land reforms, 98  
   Latin America, 546–547  
   and Middle Eastern independence, 480  
   Pacific Rim, 624–626  
   transportation, 148, 149  
   United States, 602, 603–604  
   watershed of Asian geopolitics, 508  
   Western energy use in, 165  
 World Wide Web. *See* Internet  
*Wretched of the Earth, The*, 343, 404  
 Wright, Frank Lloyd, 150  
 WTO. *See* World Trade Organization  
  
 yellow fever (disease), 238, 239–240, 263  
 Yemen, 486  
 Young Turks, 473, 476

## Index

- Yrigoyen, Hipólito, 544  
Yugoslavia, 451
- zaibatsu* (Japanese family conglomerates), 622  
Zandivar, Oliva, 543  
Zanzibar, 560  
Zapata, Emiliano, 542–543  
Zeiler, Thomas, 17
- Zelaya, José Santos, 538  
Zhdanov, Viktor, 265–266, 268  
*Zhenotdel*, 457  
Zionist movement, 480, 488  
ZPG (political movement), 231  
Zulu kingdom, 560–561  
Zunghar Mongols, 5, 22  
Zyklon B (gas),